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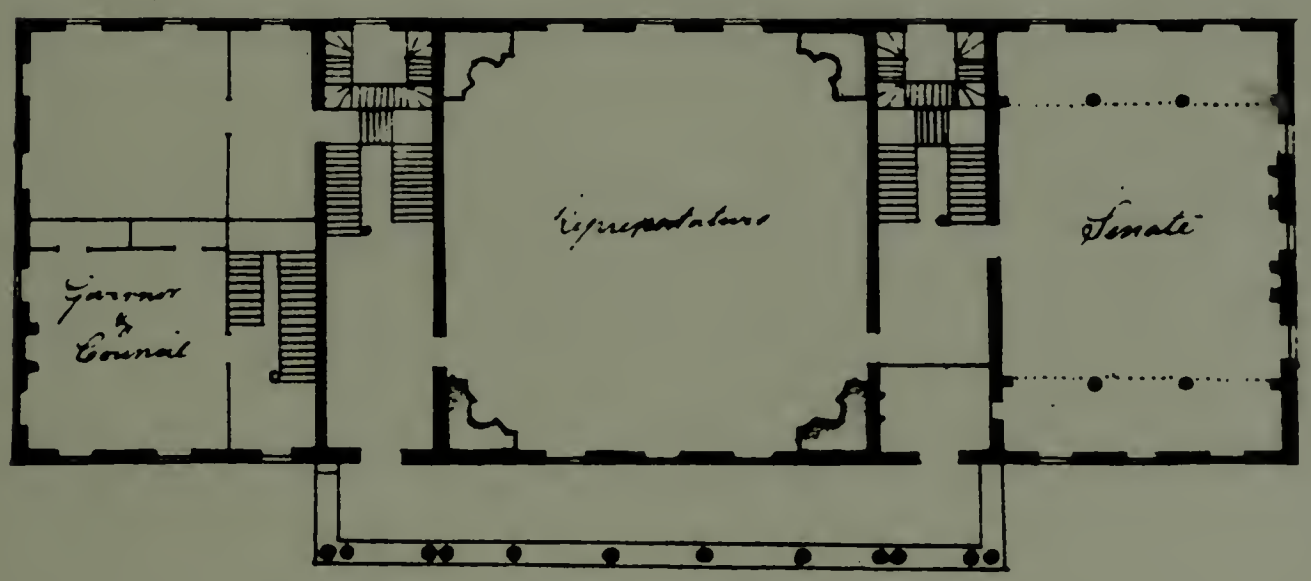

The State House
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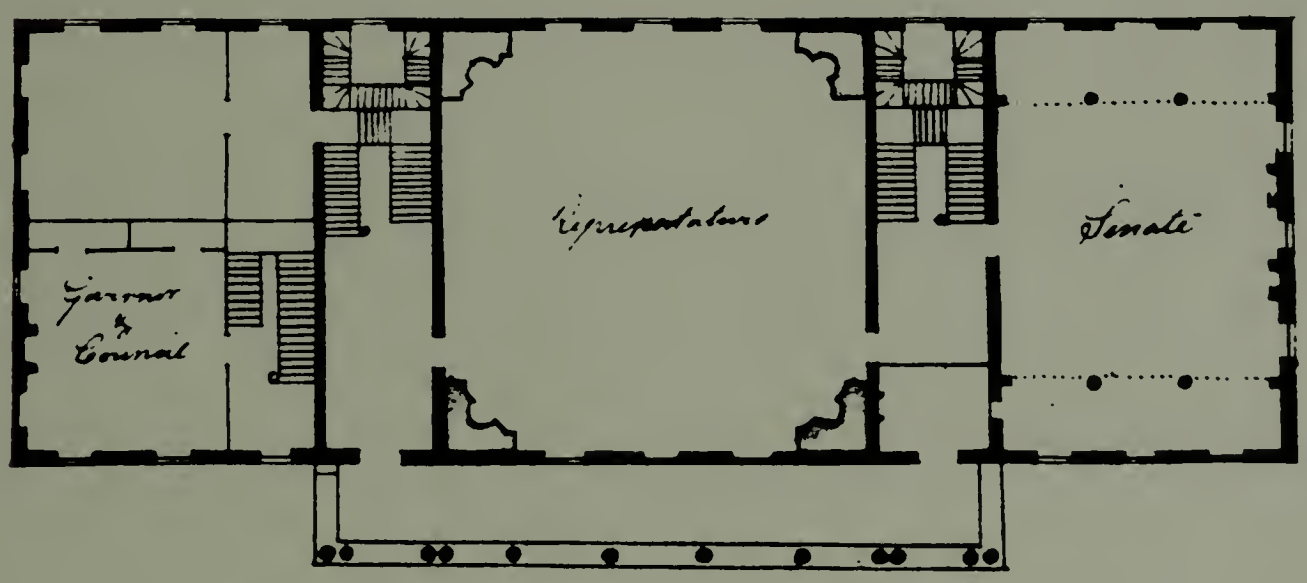

The State House
Historic Structure Report

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1. Building History
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Chapter 1
Introduction

1.1 Purpose and Organization

The Massachusetts State House is one of the nation's oldest state capitols still serving its original governmental function. The State House is also an architectural masterpiece which retains high quality elements from all periods of its long, complex history of construction, alteration, and restoration. As such, its significance to both the Commonwealth and the nation is unquestionable. In recognition of this fact, both the State and Federal governments have bestowed their highest honors on the State House by designating it a Massachusetts Historic Landmark and a National Historic Landmark in 1966. It is therefore appropriate that the State has commissioned the first detailed historical/architectural study of the building so that future alterations may enhance its intrinsic value and allow both occupants and visitors to appreciate its original grandeur. The report has been prepared under the auspices of the Division of Capital Planning and Operations.

This study, known in the preservation field as an Historic Structure Report, documents the original construction of the State House in the late eighteenth century, its subsequent additions and alterations in the nineteenth and twentieth centuries, and the continuous development of its site. Proceeding from this sound base, the report goes on to provide a multi-dimensional view of the building's current conditions, both exterior and interior. This is accomplished through consideration of such issues as historic integrity, structural soundness, masonry deterioration, and appropriateness of recent renovations. The evidence thus examined and analyzed by the study team has resulted in a thorough understanding of the building's physical development and current conditions, and has also allowed the team to make evaluations of relative significance for the spaces and features which make up the State House. The preservation plan for the building, which is fully developed in the final chapter, is made within this context.

The preservation recommendations which make up that plan serve several functions. They make explicit the objectives and approach to be taken if restoration of all or part of the State House is undertaken. They prioritize the preservation needs of the building. They clarify the extent of intrusion and alteration which would be permissable in specific areas of the State House, depending upon their relative significance. They establish a format for documentation of future changes to the building, so that new information may be incorporated into the Historic Structure Report. Finally, an administrative format for future review of State House preservation needs and alterations is suggested.

Due to the complex history of the State House, and the wealth of information available to the team, this Historic Structure Report is presented in two volumes. The first volume concerns itself

with the history and evolving appearance of the building and site. It includes the introduction and summary findings, followed by a painstakingly researched history which illuminates both major and minor changes to the building and site. The second volume is more technical in nature, describing existing conditions and the results of physical testing of the historic fabric. An architectural description is included to help orient the reader to the building. This volume also evaluates the relataive significance of spaces and features within the building, and, most importantly, develops detailed preservation recommendations. These recommendations, which are the heart of the study, result from a complete knowledge of the State House history and existing conditions, and cannot be viewed in isolation. An understanding of and interest in the building history and the complexities of its current condition, coupled with knowledge of preservation philosophy and methodology, is essential to the recommendations. The illustrations, including both current and historic photographs, plans, and maps, are reproduced in both volumes. Additional data, too detailed to include in the report, is available in project files.

The authors view these volumes as products of 1984-85, a time of evolution for preservation philosophy and technology. The treatments suggested for the building shell and site, as well as significant interior spaces are a function of reliable technical solutions available today. Because all materials, exterior and interior, cannot be repaired with current technology, recommendations include protection and stabilization, as well as preservation, rehabilitation, restoration or reconstruction. To serve as useful document, the Historic Structure Report, like the State House itself, requires vigilant review, further investigation, and re-evaluation by succeeding generations of knowledgable scholars and preservation architects.

1.2 Methodology and Contributions of Team Members

This Historic Structure Report was prepared by an interdisciplinary team of architects, building and materials conservators, architectural and landscape historians, structural engineers, archivists and photographers. Each brought his or her specific area of professional expertise to bear on the problems of understanding the complex history of the State House and grounds, and of making recommendations for treatments which will conserve and enhance historically significant features and spaces. Briefly, the team included the lead firm of Ann Beha Associates, (ABA), architects; the Consulting Services Division of the Society for the Preservation of New England Antiquities, (SPNEA), historians and conservators; Preservation Technology Associates, (PTA), masonry conservators; LeMessurier Associates/SCI, (LMA), structural engineers; Nancy Schrock, archivist; and Milltown Graphics, (MG), photography.

Unravelling the building's complex history of construction, alteration and addition was the first task facing the team. After historic and contemporary architectural drawings in the possession of the Division of Capital Planning and Operations were indexed by Nancy Schrock, the SPNEA team developed a detailed evolutionary picture of the building and grounds using the complementary tools of documentary research and physical analysis. Architectural historian Anne Grady, with assistance from Dr. Edward Zimmer, examined voluminous records including legislative Acts and Resolves, bills, building committee reports, newspaper accounts, and historic photographs and drawings, to produce a written history of the building from its inception in the 1780's to the present. Landscape historian Alan Emmet was responsible for a similar effort to document the evolution of the grounds. Building on the work of the historians, conservators Sara Chase and Morgan Phillips examined the physical fabric of the building. Sampling paint, nails and plaster, they were able to date extant elements, and confirm or refute discoveries made by the historians.

Recording and interpretation of existing conditions was the team's second major task. ABA team members Donald Klema, Peter Polhemus, Dennis Carlberg and Sandy Isenstadt visited each space within the building, recording information about present use, physical condition, historic and contemporary architectural finishes, and notable features on a standardized form; over 1,000 slides were taken to supplement the field notes, and a summary narrative was prepared for the report. Architectural historian Candace Jenkins used the data compiled by SPNEA and ABA to produce an architectural description which analyzes the physical and artistic interrelationships of the building's component parts and also notes major alterations to original fabric. This description, which begins the Existing Conditions chapter of the report, is designed to orient the reader to the spatial

organization and dominant features of the building. Dr. Judith Selwyn of PTA documented exterior masonry conditions through analysis of the written record and examination of the physical fabric. Roger McCoy of LMA used similar methods to produce a summary structural investigation. James Higgins of MG photographed exterior and interior views of the State House, duplicating historic views where possible, so as to invite comparisons between former and present appearances.

Finally, the team, led by Ann Beha, used the data on historical development and existing conditions to evaluate the relative significance of features and spaces within the building, and to formulate recommendations for their proper treatment. The architectural quality of the feature or space as originally conceived; its functional role and its age were the criteria employed in determining significance. The level of significance, along with integrity and visibility to the public, determined the recommended treatment. All treatments are based on the "Secretary of Interior's Standards for Historic Preservation Projects", a well-known set of guidelines formulated by the Federal government to ensure proper treatment of historically and architecturally significant properties. The team's recommendations are summarized in the Room Evaluation Chart and a Significant Feature Chart found at the end of the Chapter 5.

Chapter 2
Summary Findings and Recommendations

2.1 History of Site and Structure

Efforts to provide a new State House for the Commonwealth of Massachusetts commenced in 1787. Over the following eight years, several legislative committees considered sites including Boston, Watertown, and Worcester, and studied several designs. Charles Bulfinch was involved from the beginning, offering a plan and estimate in 1787. He revised the estimate and perhaps the design in 1795, when his scheme and the Beacon Hill site were selected.

Bulfinch's Federal period design shows the influence of English Neo-Classicism, which he had seen first-hand on a trip to Europe in 1785-7. The State House exterior appears to be derived from Somerset House by Sir William Chambers, while elements of the interior may be based on James Wyatt's Pantheon, both in London. The cornerstone for the State House was laid July 4, 1795; occupancy began in January, 1798.

As one of three agents appointed to erect the building, Charles Bulfinch supervised the construction of his design. The other agents procured materials, approved bills, and kept accounts. Through those bills and accounts, many of the builders and suppliers for the original structure have been identified.

The original building measured 173 feet long and 63 feet deep. The exterior is organized as two stories, with a projecting portico of tall, Corinthian columns on the principal, south facade, standing on a brick arcade. An attic story with a pediment is topped by a high, hemispheric dome, surmounted by a lantern. The Bulfinch State House was the first large, domed, public building in the United States. The dome was originally covered with gray-painted shingles; then was coppered around 1802. Gold-leaf replaced the paint in 1874. Originally unpainted, the exterior brick was painted for the first time in 1834, remaining in that condition until 1928, when the brick was sandblasted.

The south front and east and west sides largely reflect the original appearance. One substantial change was the lowering of grade by five feet in 1855, and the facing of the newly exposed basement with rusticated, dressed granite. The brick walls were painted from 1825 to 1918, first a gray-white tint, and later yellow.

On the interior of the Bulfinch building, Doric Hall is the only ground floor space that has been returned more or less to its early form, with stone and metal columns replacing the original ones of wood and plaster. Other spaces on that level, including the original Treasurer's and Secretary of State's offices, have been utterly changed. An intermediate floor, which originally was positioned between the ground and principal stories is also gone.

On the second, principal story, the Council Chamber (now Governor's office) is the most intact room in the Bulfinch building. Its principal feature is elaborate stucco work decoration, a highly significant local interpretation of the English Adam style, probably executed by Daniel Raynerd. The Representatives' Room (now the Senate Chamber) has seen more substantial changes, especially in the lower walls and galleries, but the basic space and ambitious domed ceiling with rich plaster ornament retain much of their original effect. The old Senate Chamber (now Senate Reception Room) has had some sensitive reworking of the east and west walls, but is substantially intact in original architectural treatment and plaster ornament. This room is especially well-documented in carpentry and stucco work bills.

Many interior alterations took place in the building`s first half century, especially to the heating and ventilating systems. Gas for light was added in 1849. The first addition to the building was the "Washington Temple" erected on the north side of Doric Hall in 1826, designed by Alexander Parris to house the memorial statue of George Washington. Isaiah Rogers designed fireproof rooms which were added in 1831, flanking the Washington memorial.

By the 1830's, more space was needed, but substantial additions were thwarted by relocation proposals from the 1830's to 1852. At that time, a large wing was added to the north, designed and supervised by Gridley J. F. Bryant. The new wing made extensive use of masonry vaulting and structural and decorative cast iron for fireproofing.

The next major alterations were carried out in 1867 in the First Renaissance Revival Style, under the direction of architect William Washburn. The principal purpose of this work was to provide additional room for committees, gained through rearrangements in the existing structure and by raising the roof to accommodate a new top floor. Washburn also carried out a cosmetic remodelling of the House and Senate chambers, substantially altering the lower walls of the former and more discretely redesigning the east and west walls of the latter. Exterior changes included continuing the balustrade of the portico around all the eaves, to screen the changes in the roof.

Prior to the next major round of additions in the late 1880's, the State House dome was gilded for the first time (1874), the basement was remodelled for additional office and committee space (1881), and the passenger elevators were first installed (1885).

Post-Civil War growth of the state government soon outstripped the Washburn alterations. An architectural competition for the design of a major addition was announced in 1888 and won by partners Charles Brigham and John Spofford in 1889. After substantial revision to render their Second Renaissance Revival

Style design more clearly subservient to the Federal Bulfinch building, construction began on the large rear extension. The yellow brick and white marble trim were chosen to harmonize with the painted color scheme of the older building and the exterior detail drew on the same source. Other features were indisputably of Brigham and Spofford's era, especially the scale of the addition, which quintupled the size of the building. This combination of conscious deference to the late eighteenth century capitol and high-quality Victorian decoration lends a special, significant quality to the Brigham extension.

The full effect of the Brigham interior has been diminished by uncomplementary modern paint schemes, as well as the removal of original light fixtures, stained glass windows, furniture, and wall coverings. However, much remains, such as the carved marble, mosaics, and murals in the lavish Hall of Flags, the grand marble and cast-iron staircases, the woodwork and plasterwork of the Hall of Representatives, the galleries and stained glass windows of the State Library, and the furniture, fireplaces, and woodwork of many of the private offices.

In addition to providing new quarters for the House of Representatives (allowing the Senate to move to the former House chamber), State Library, and many committee rooms and offices, the Brigham extension contains a major core of ceremonial spaces: the Senate Staircase at the south end, followed by Memorial Hall or Hall of Flags, and the combination House lobby and Main Stairhall. These spaces were arranged en suite behind Doric Hall, and were conceived to provide a continuous vista through the center of the new building.

The Brigham extension was largely completed by 1897. The final cost of the building and the new east park was $5,752,607. That figure included new heating and ventilating systems for the whole building, as well as installation of electric lights, powered by a generating plant in the building.

The construction of the Brigham extension brought renewed attention to the deteriorated condition of the original Bulfinch building, prompting another debate between advocates of restoration and of replacement. Backed by strong public opinion, the former were triumphant, and it was restored to a Neo-Federal appearance. In 1896, the expenditure of more than $300,000 was approved to repair, restore, and fireproof the Bulfinch building. Foundations were reinforced, structural steel support was added throughout the interior, and new steel-framed roofs were built.

Most of the wooden construction and trim of the interior was replaced with fireproof terra-cotta block walls, wire lath, and plaster. The only major woodwork retained was that in the original Senate, House, and Council Chambers, and the structure of the dome. Steel support was added above the chamber ceilings,

and fireproofing of wire lath and plaster was applied above the ceilings and on the inner surface of the dome.

On the exterior, new window frames and sash were installed and other deteriorated elements were replaced. A balustrade added in 1867 was removed, some original door and window placements were restored, and the floor of the colonnade, the steps, and the terrace were rebuilt.

The East and West wings, designed by Chapman, Andrews, and Sturgis and constructed between 1914 and 1916, were the last major addition to the State House. The marble-faced, steel-frame wings were planned with attention to fireproofing and to subservience in design to the Bulfinch structure.

The latter is more clear today, with the recessed white wings serving as a backdrop to the red brick center, than it was in 1916, when the yellow-painted Bulfinch building was repainted white to match its new wings. The red brick has been exposed since 1928. Extensive exterior renovations were carried out in 1957-1960, including replacement of almost all exterior trim. Even the fluted wooden columns of the portico were replaced with cast iron shafts and cast aluminum capitals. At the same time as that renovation, the underground Archives was added north of the west wing. The Brigham extension suffered the removal of the Ashburton Place portico in the early 1960's, and the removal of the great elliptical, stained-glass skylight in the House Chamber in the early 1970's.

2.2 Summary of Existing Conditions

Physical and documentary research yielded a reasonably complete picture of existing building and site conditions. While physical investigation was necessarily visual rather than intrusive, much new evidence on original, later, and current building appearance and problems evolved. The building suffers in many areas from leaks, drafty windows, peeling paint, and site and building masonry problems, but for its age, size, intensity of use, and complexity, the shell and finishes are generally in good physical condition. (Building systems were not examined as a part of this Historic Structure Report.) The interiors reflect the taste and management of many groups. The Bulfinch building is appropriately revered, and its ceremonial and public spaces are well painted, well furnished and well maintained, even if not always historically precise. The Brigham extension has fared less well. Recent multiple renovations have resulted in many significant losses of original material and features, including ornamental stained glass skylights; wallcoverings such as tooled leather and marbleized painting; and exceptional original bronze and glass lighting fixtures. The original paint schemes have also been covered but can more easily be reinstated. For the site and landscape, much of the historical appearance could also be replicated. Unfortunately, the current south terrace is a cluttered, somewhat overplanted landscape, and the Ashburton Place Park has been lost to an asphalt parking lot. The historical appearance of the building can be recaptured and reinstated, but conditions indicate that many repairs have been imprudently postponed; in cases like areas of site masonry, existing conditions are hazardous.

2.3 Preservation Philosophy

Charles Bulfinch's original building was restored in the 1890's at exactly the age of 100 years. Although not perfectly accurate, Arthur Everett's restoration was rather scholarly for the time, especially in comparison with George Clough's picturesquely wrong restoration of the Old State House in 1882. Besides returning some features, like the cupola, to almost exactly their original appearance, Everett (at the expense of Bulfinch's mezzanine floor) tidied up an interior that had been subject to many alterations of haphazard design and sometimes unsound construction. Everett's work combined some actual restoration with well-organized and well-built new interior offices in the appropriate Federal Revival style.

Now that another century has almost passed, it is not unreasonable to propose that a coherent restoration plan once again be laid out. For financial reasons, the elements of that plan may have to be performed over many years. Even piecemeal work, however, done according to a single correct plan, will have much the same beneficial effect on the building as did Everett's restoration. Many items of great beauty, currently deteriorated, badly altered, or missing, can be accurately restored, just as Everett correctly reproduced Bulfinch's cupola. The lighting fixtures in the Brigham extension, removed but well documented in photographs, are a prime example of an equivalent task. Meanwhile, as in the earlier restoration, haphazard, confusing, and unattractive partitions, lighting, paint colors, and other features that have collected throughout the building during the last fifty years can be reformed into a well-designed, stylistically appropriate order.

Besides repeating Everett's task of a century ago, we must meet today a further obligation: the preservation, as antiquities, of certain elements of the building. Clearly, everything dating from the original construction is to receive extraordinary conservation efforts. In dealing with Bulfinch's materials, we must not only preserve the same design, but also protect the actual material fabric, sometimes employing the tedious methods and exacting approach of the conservation of museum objects.

What Everett left intact of Washburn's mid-nineteenth century work, and Everett's own restoration work, have by now acquired considerable importance of their own as well-conceived examples of nineteenth-century Boston architecture and, in the team's view, should be preserved. Also, the existing work of Washburn and Everett is so extensive that the Bulfinch building must be seen as a three-period building: Bulfinch (1797), Washburn (1867), Everett (1897). The exterior repairs of ca. 1960 consisted entirely of accurate replacement in kind and had no visual effect on the building. The three earlier periods of work fit together to make an excellent total design with a coherent, and highly interesting, history. Restoration to the Bulfinch

design would involve extensive destruction and cost, as well as much speculation about details. Even partial destruction of Washburn or Everett work, in important areas, would only diminish the architectural historical coherence and interest of the building.

In the Brigham extension and the East and West wings, the mandate is clear: to return these portions of the building as much as possible to the higher standard of quality they originally exhibited. Where that standard was very high, as in the interior finishes of the extension, the changes made from now on should virtually all be within the framework of restoration. Where the original standard was not so high, as in the interiors of the wings, the quality original parts such as the halls and stairs, should be refurbished recognizing the original design intent and appearance while the rest may be appropriately renovated.

In the Bulfinch building, the extension, and the wings, there are many spaces of secondary or contributing significance where an improved appearance, at an affordable cost, may be achieved through the application of paint colors or the installation of light fixtures that do not accurately replicate earlier appearance, but are simply appropriate to the space. This "period decoration", suitable, for example, in the suites of offices to either side of Doric Hall, would be improper in the primary spaces or on the exterior, where a scholarly approach should be pursued.

It should be understood that during our investigation, we repeatedly faced the impracticality of dating some elements, where too much disassembly, or destruction of finishes at least, would have been required. These instances are noted in the text, where they occur. As work is scheduled to be done in these areas, and the opportunity or need to open things up arises, an architectural historian should identify and record the ages of what is found and assess its meaning. As stated above, material from the original construction or very early alterations, should be treated with special care.

Implementation of Philosophy

This general preservation philosophy is fully developed in Chapter 6 of this report. The recommendations that make up that chapter address the building's exterior and interior materials, proposing appropriate levels of restoration, renovation, and uses. The recommendations draw on the results of historical research, testing, and analysis. These results are considered in light of accepted standards for historic preservation, and available building and materials conservation technology. Chief among established standards are the Secretary of the Interior's Standards for Preservation Projects and the American Institute of Conservation's Code of Ethics. Available technology includes the techniques researched and published by the National Park Service,

as well as numerous publications and projects which establish appropriate treatments for masonry, wood, metals, paint, and finishes. Administrative recommendations are drawn from the team's understanding of existing building regulations and policies, and draw on the team's past experience with diverse public sector client groups.

The team has recognized the need for, and history of, architectural change at the State House. Underlying the recommendations is the conviction that selective and well-managed change, conscious and informed about historical context, can coexist with building restoration.

Exterior Goals

For exterior restoration, four goals are set, and each is discussed for its implications and a proposed course of action. Goal One is re-establishment of a weathertight shell. Goal Two is the protection and stabilization of deteriorated materials and elements. Goal Three proposes extraordinary efforts to protect and conserve original or early features of the Bulfinch building. Goal Four is the restoration of the well-documented site features, including the Ashburton Gate Park, and the proper treatment of altered but historic landscapes, such as the Bulfinch Terrace and the east park.

Interior Goals

Three goals are set for the building interior. Goal One is the accurate period restoration of all areas of primary significance. Goal Two is the restoration and appropriate treatment of areas of secondary significance as alterations are undertaken. Goal Three is the retention, protection, and appropriate treatment of areas or features of contributing significance. These goals are discussed in detail for each area or element within each category, and a work program and additional research, when required, are established for all areas of primary significance. Selected areas of secondary and contributing significance are discussed in detail.

Administrative Goals

The team recognizes the importance of administration and review for alterations, restoration and maintenance. The study team can only suggest the controls which may be required; our task was less to understand the administration of the State House than the building itself. The team has set five administrative goals. Goal One is the recognition of the State House as a cultural resource, not simply an architectural landmark. The building houses a significant collection of art, documents, furniture, textiles and historic objects. Their conservation requirements should be well understood and integrated into a restoration program. The team proposes the development of a comprehensive

document to incorporate preservation guidelines for the building and its significant objects and collections. Such a document would be similar to a Cultural Resources Management Plan, a National Park Service standard. Goal Two is the proper documentation of changes as they are undertaken, and the stabilization and proper storage of the existing archives. Remaining drawings are threatened, and a completed archival study indicates their requirements. Goal Three is the annotation of the Historic Structures Report at frequent intervals. Clearly a product of 1984-1985, the report should be reviewed and updated frequently, as work proceeds and more evidence is uncovered. Goal Four is systematic review of proposed changes to rooms which are, or impact, areas of significance. This will require centralization of effort and introduction of a review process. Goal Five is the preparation and adoption of a systems format for maintenance, with qualified staff to work on historic materials.

Given below in summary form are specific examples of how these exterior and interior goals may be applied to different portions of the building.

Bulfinch Building: Summary

Exterior

Regarding Goal Two, the study proposes to meticulously conserve original or early elements such as paterae of portico and pilaster caps of attic story, original brickwork, cornice of drum of dome. Maintain normally 1890's elements, such as cupola, and material of ca. 1960 that reproduces earlier designs, such as columns of portico. Observe and evaluate evidence when repairs are done on elements that may be early, such as finials of cupola.

Interior

Regarding Goal One, the study proposes to meticulously conserve original material in Governor's Office and Senate Reception Room, but return to earliest finishes. Maintain normally 1860's and 1890's elements in Senate and Senate Reception Room. Maintain 1890's elements in Governor's ante rooms, Council Chamber, Doric Hall, and flanking stair halls. Preserve 1890's elements in lesser spaces so far as consistent with practical requirements.

Brigham Extension: Summary

Exterior

Regarding Goal One, the study proposes extensive repairs and reconditioning deteriorating masonry and drainage systems. Conserve important decorative elements, such as lamps at east entry staircase, and reinstate missing or removed historic features, described in detail in Chapter 6.

Interior

All goals contribute tothe treatment of the Brigham interior. The goals suggest that a restoration program conserve and recondition surviving original decorative elements such as woodwork, stone carvings, plaster cornices and replicate original lighting fixtures, especially in stairs and halls, legislative chamber, and major rooms; and replicate original paint colors and special wall finishes in major spaces. Recent partitions should be eliminated to re-form original restorable spaces. Paint colors and lighting fixtures should be used thrughout the space that are more in keeping with originals.

Wings: Summary

Exterior

The goals for the wings suggest that original elements such as stonework, sashes, iron balcony railings be restored and repaired, and that missing original light fixtures at main entries be replicated.

Interior

The goals suggest that original elements of lobbies, halls, and stairways be restored, and that paint colors and lighting fixtures that will upgrade these areas in the original style be chosen. Plan freely in office areas.

On pages 331 through 345, the room evaluation chart presents in graphic form, the significant details and features of every space within the building. Decorative arts, visual arts, textiles and historic objects were not a part of this study, but should be evaluated in the future.

Chapter 3
History of Site and Structure

3.1 Research and Methodology

Because the building under study is a state capitol many more documents regarding construction, repairs, alteration, and additions were systematically kept than almost certainly would have been had the building been a privately-owned structure. Until the 20th Century, nearly everything done to the building was authorized by a separate Act or Resolve, and legislative records dealing with construction and repairs were kept along with all records of the General Court in the State Archives.

The Acts and Resolves themselves provide a fair amount of information about the work authorized, particularly during the first half-century of the State House's existence. In addition, however, filed with the original manuscript copy of the Act or Resolve in the State Archives are any relevant documents. These documents, known as the original papers for the the particular act or resolve, may include committee reports, letters, estimates, accounts or, very occasionally, bills.

The first task was to search the printed Acts and Resolves for legislation dealing with State House construction. For the years in the early 19th century for which the indices were very sketchy, this included surveying the books, page by page, to identify the legislation dealing with the State House.

Once found, a card file of photocopies of all the Acts and Resolves relating to State House construction and repairs was made. Interspersed among the Acts and Resolves until c. 1850 were rolls of accounts which included statements of payments for work on the State House. These statements were also photocopied.

The photocopied material was used to prepare an initial chronology of changes and additions to the building. The chronology provided a basis for further research and helped to identify the Acts and Resolves for which it would be particularly important to read the back-up information.

Senate and House Legislative Documents

In addition to papers filed with individual Acts and Resolves, there are several other sources of information about proceedings of the General Court with regard to State House construction. Legislative documents of the House and Senate began to be published in the 1830's. These were primarily reports of various committees of the Legislature. They are found in bound volumes in the State Library numbered sequentially for a given year as either House or Senate documents. They include the published reports relating to all of the additions and many of the alterations to the State House up through the early 20th century.

Other unpublished Legislative documents for the years before the 1850s are found in the State Archives. They may be located through the microfilmed index of Unenacted Legislation. House and Senate Journals are another record of day-to-day procedures in the General Court.

Note: The State Library and the State Archives are separate agencies. Printed material relating to the Legislature is found in the State Library, while manuscript material is kept in the State Archives.

Other Sources in the State Archives and Library Relating to State House Construction and Repairs

The most valuable sources for the construction of the Bulfinch State House are Volumes 266, 267 and 311 in the State Archives. These contain over 300 manuscript bills from craftsmen and suppliers. For alterations, maintenance, and repairs from 1800 to 1849 the State Archives has a nearly complete set of manuscript bills which correlate closely with the accounts of the State House expenses published with the Acts and Resolves. (See D.C.P.O. Team File for summary of contents of the above bills.)

Manuscript bills for the Bryant addition are found in two volumes of Construction Commissioner's reports and minutes in the State Archives. Whether manuscript bills for work done in the second half of the 19th century have survived is unknown. Copies of bills in the Burrill file (mentioned below) seem to indicate that the bills existed in the early 20th century, but they cannot be located in the State Archives.

For the Washburn renovations, a published final report by the surviving Construction Commissioner and nearly one thousand pages of testimony relating to charges of over-runs and other improprieties are in the State Library. It is possible to extract information about the actual renovation work from the testimony, but no minutes of Construction Commissioners' meetings or manuscript bills for the Washburn work have been found.

The building of the Brigham extension and the restoration of the Bulfinch State House are covered together in three volumes of Construction Commissioner's records in the State Archives. These contain minutes of commission meetings from 1889 to 1899, annual reports, summary accounts of expenses (but no bills from contractors or suppliers), and carbon copies of virtually all contracts and specifications.

For the construction of the East and West wings there are in the State Archives fifteen volumes of Construction Commissioners' reports, minutes, payment ledgers, etc. and several bundles of miscellaneous material. In one of the bundles is found the

printed specifications for the work. In the State Library Special Collections, there is a book of newspaper clippings chronicling construction of the wings and several volumes of photographs of construction.

For maintenance, repairs and alterations to the State House after 1850 and up to the present day, no organized files have been found. For the period after the Second World War boxes of miscellaneous documents in the Department of Capital Planning and Operations (D.C.P.O.) archives provide some useful material, but what found its way into the boxes varies greatly in importance and there are some signifigant ommissions. The best sources of information about 20th century work are the plans themselves, most of which seem to have been kept and are now organized in a preliminary fashion (see below).

Architectural Plans

Plans of all additions and major renovations to the State House, except the Washington Temple, are found in the State Archives or in the State Library. The Archives also have plans of some early alterations or proposed alterations. Extant plans include printed plans of the Bryant addition, together with the Bulfinch State House in 1854 (State Archives), Washburn's renovation plans of 1867 (Archives), "as built" plans of the Brigham extension and the restoration of the Bulfinch building of 1897 and 1899 respectively (Library), plans of the structural steel reframing of the Bulfinch buildings in 1897 (Library), various plans of the East and West wings (Library), and the Archives Building (Archives).

The D.C.P.O. has a collection of over three thousand five hundred architectural plans of State House additions and repairs. These have recently been inventoried and a shelf list has been prepared under the direction of Nancy Schrock. Perhaps most signifigant are the nearly 200 original ink-on-linen drawings by Charles Brigham and many of the interior elevations of rooms in the extension. There are also 97 plans of the East and West wings, about 350 rolls of plans, and several racks of hanging plans relating to work since 1919. (Note: a number of the above plans represent duplicates.) These were studied extensively by many participants in the Historic Structure Study with the post-1919 plans being particularly valuable as the only organized source of information about the more recent work.

Burrill File

Ellen Mudge Burrill, an employee of the Sergeant-at-Arms, wrote a number of editions of a guide to the State House between 1901 and 1924, each one more extensive than the previous one. The guide

books themselves, particularly the 1921 edition and the 1924 edition (which contains a listing of art work in the State House), are valuable sources of information. They are extensively footnoted and appear to be highly accurate.

The Burrill file in the State Library Special Collections is an assemblage of information gathered by Burrill in preparing the guide books. It includes copies of Legislative documents, letters, plans, and a number of historic photographs.

Mention should also be made of Sinclair Hitchings and Catherine H. Farlow's excellent "New Guide to the Massachusetts State House" of 1964. As a general guide to the State House, the book would be hard to improve upon, visually or verbally, and is the starting point of choice for anyone studying the history of the State House.

Additional Sources and File of Photocopies of Historic Photographs and Plans

In addition to the above sources, the card catalogs and photograph collections of all the major repositories in Boston were checked for information about the State House: the State Library, the Boston Public Library, the Boston Athenaeum, the Bostonian Society, the Massachusetts Historical Society, and the Society for the Preservation of New England Antiquities. A file of photocopies of all historic photographs located and all plans up through 1888 was created for reference. It was not possible to read every source identified given the time-frame, nor to carry out a systematic search for relevant newspaper articles.

The Use of Documents in Determining the Architectural History of the Building

Materials were studied for any information they might yield about the configuration of the building and changes to it. Sometimes clues found in several documents together provided answers (as in the case of the composition ornaments on the exterior). Sometimes questions raised by the documents were answered by examination of the physical evidence. The following examples will indicate something of the range of ways in which documents provided information for the Historic Structures Report.

Figure 39 is a photograph of the Washington Temple taken in the late 19th century after the arched openings to the Temple had been covered with glass so that battle flags could be safely displayed in the Temple. Examination of the photograph will reveal that the opposite wall of Doric Hall is reflected in the glass. Thus, we are provided with our only view of the frame of the central doorway at the south side of the room at that period.

The question of whether the intermediate stories flanking Doric Hall existed from the beginning was solved by making a chart of all the rooms mentioned in the report on allocation of space in 1798. Seventeen rooms are indicated with hints at their location such as "lobbies on the lower floor at the rear" or "Lobbies in the West End numbers 11, 12, 13, 14." We knew from later bills that the attic and cellar were not finished off originally. Once we had mapped out the rooms mentioned, we knew that many rooms could only have been accommodated if there were intermediate stories.

3.2 Bulfinch Building and Demolished Additions (1795-1856)

A New State House Considered

The Commonwealth of Massachusetts began in 1787 to consider the construction of a new state house as a symbol of its newly independent status and in order to provide better accommodations for its governmental offices.[1] The decision to build the earliest portion of the present State House was not made until 1795. Documents indicate that, during the intervening seven-and-a-half years, a number of locations were considered and at least two building plans proposed.

On June 28, 1787, a committee of the House and Senate was appointed "to consider whether a more convenient place for holding the General Court can be found . . . either within or without the Town of Boston and upon what terms and at what expense convenient Buildings may be erected."[2] On November 9, 1787, the committee presented to the General Court a proposal from the Town of Boston together with two plans, one of a building costing L5,000 submitted with the Boston proposal and one by Charles Bulfinch, with his estimate of L4,000 for construction cost.[3] The committee recommended further that William Foster's pasture "lately Bought for that Purpose By the Town of Boston . . . Is the Most Convenient Place" to build the New State House."[4] This land in the old South End, just north of Boylston Street, is now part of the Boston Common.[5] The report also mentioned receipt and rejection of a proposal from Watertown.[6]

No further action on the construction of a new State House was taken until 1792, when another legislative committee was formed. Thomas Dawes of the Senate, and John Read and Martin Hinsley of the House were appointed in June the "committee to prepare or procure plans of a Building. . .and to receive proposals. . .of a tract of land in the town of Boston, or elsewhere."[7] They gave notice in the newspaper that they would "receive proposals and plans at the East Lobby of the State House, on the 14th and 21st days of November next from eleven to one o'clock."[8]

Meanwhile, in September 1792, a committee appointed by the Town of Boston urged the Town to make an offer of a location for the new State House and of a sum of money "not exceeding L3000." Again William Foster's pasture was recommended.[9] On January 23, 1793, Boston's Town Meeting passed a proposal that the Town provide a new State House in exchange for transfer to the Town of ownership of the Province House and the State's interest in the Old State House.[10] In February, 1793, inhabitants of Worcester made a proposal and promised L3,000 to L5,000 to support location of the new State House in Worcester.[11]

In March 1793, the committee appointed the previous June headed by Thomas Dawes reported receipt of proposals from the Town of Boston and inhabitants of Worcester "which with two plans they submit[ted] for the consideration of the two houses."[12]

On June 5, 1793, Dawes' committee reported that further consideration should be put off until the next session and that in the meantime "a committee should be appointed to receive further proposals."[13] No references to further consideration are found in records of subsequent sessions before 1795, however. In January 1795, a committee of the General Court was appointed again to "consider the expediency of building a new state house,"[14] and another committee was formed to confer with Boston. This time definitive action was taken. Charles Bulfinch submitted on January 21, a new estimate of L6,492.10 for the cost of constructing a building according to his plan of 1787.[15] On February 16, 1795, Edward Hutchinson Robbins, Speaker of the House of Representatives, Charles Bulfinch and Thomas Dawes were appointed Agents by the legislature and were impowered to build a new state house in the so-called Governor's pasture "adjoining the late Governor Hancock's Garden . . . ; on such plan and model as said Agents with the approbation of the Committee . . . Shall adopt."[16] Boston and the Commonwealth agreed that the Town would purchase the land and the Commonwealth would pay for the building. The agents were directed to sell the Province House and the State's interest in the Old State House.

The preceding description is a mere outline of the deliberations over the location and design for a new state house. Several interesting questions remain. The documents do nothing to explain why the process took seven years. Nor is the reason clear for the shift from the South End to Beacon Hill as the preferred location. Very possibly Governor John Hancock promoted the site adjoining his mansion before his death in 1793, as indeed he may have promoted general development of Beacon Hill. Bulfinch historian Harold Kirker believes that Bulfinch's placement of a commemorative column to the American Revolution on Beacon Hill in 1792 influenced Boston's growth in that direction.[17]

None of the several preliminary plans has survived, neither Bulfinch's plan of 1787 nor another proposed by Boston at the time. Clearly the General Court was not satisfied with either, for plans were sought again in 1792. In 1793, a plan was submitted with a new proposal from Boston and one from Worcester.

Very likely, in 1787, Charles Bulfinch did not have sufficient reputation to foster quick approval of his initial design. He was 24 years old, recently returned from Europe, and this was his very first building plan. One can speculate that Thomas

Dawes may have been the author of one or more of the plans considered. Dawes was a mature and well-respected patriot and mason-architect, who had designed a number of influential buildings, and he was closely involved with considering proposals both for the Town and the Commonwealth.[18] Even in 1795 when the three agents were appointed to erect the State House, the plan of choice had not been named.

Bulfinch's Plan

On November 5, 1787, Charles Bulfinch stated in the cover letter submitted with his plan:

> Gentlemen;
>
> I take the liberty to offer for your consideration a plan for a new State-house. It is in the stile of a building celebrated all over Europe; I have endeavoured to accomodate it to the conveniences and necessities of the country, and have attempted to give it an air of magnificence without departing from Economy. All of the rooms are much larger than those in the present State house, & I believe the Representatives' Room of 60 feet by 45 will be found to be as large a space as any man's voice can fill with ease . . . . [19]

The accompanying cost estimate of L4,000 gives few clues to the actual configuration of the building. Reference is made, however, to laying bricks including arches and to "18 columns of 18 inches diam."[20]

On January 21, 1795, Charles Bulfinch wrote to Perez Morton of the 1795 committee of the General Court to consider the building of a new State House:

> Sir,
>
> My estimate of the cost of a state house was made many years since, from such information as I could obtain from workmen; my own experience since that time has convinced me of the fallacy of estimates in general and especially in buildings of a public nature. Presuming, however that my measures and calculations were accurate when the estimate was made, I have now added the difference in value of materials and workmanship; and find the whole amount to be near L6,500 -- This sum will probably fall short of the actual expence [sic] and I would not venture to contract to complete the building under L8000.

> Should the General Court come to a resolution to erect a new building, I hope I shall be allowed the liberty of withdrawing my plan for the purpose of adding such improvements as experience may suggest, or of substituting some other in its place.[21]

In the estimates accompanying the second letter the categories of cost are slightly changed. The amount of materials and work required, however, are virtually the same, with the exception of an increase from 400,000 to 500,000 in the number of bricks needed. There is no way of knowing if Bulfinch was allowed to withdraw his plan at this point as requested, but if he was, it does not seem likely that he changed the plan significantly. Comparison of the above-mentioned estimates and the bills for actual construction cost indicate no radical departures from the estimates for material and labor. For instance, the number of bricks actually used, 452,000, falls between the two earlier estimates. The one piece of evidence in the documents that Bulfinch altered his plan substantially at this point seems not to hold up under scrutiny. An 1820 travel account states:

> The original plan is said to have been a good one; but the committee were alarmed at the expense, and therefore ordered ten feet of solid wall to be left out of each wing in the length, and a proportionate quantity in the width: this of course gives it a lantern-like appearance, and made the dome look so out of proportion as to crush the edifice.[22]

In fact, the amount of L8,000 which Bulfinch estimated as the real cost of completion of the building is exactly what the General Court appropriated. Two features mentioned in the estimates and cover letters, however, are known to have been changed before the building was constructed: the Representatives' Hall was built as a square 55 feet on a side rather than as a rectangle 45 feet by 60 feet, and 20 rather than 18 exterior columns were used in the final structure.

The only known plan by Bulfinch of the State House to survive is the undated "Elevation and plan of the principal story of the New State House in Boston," in the Stokes collection of the New York Public Library (Plan 1).[23] This delicate drawing (the width of the building drawn is only 5-3/4 inches) is rendered in sepia ink with grey and sepia watercolor washes used to highlight elements or to convey shadows. It seems logical to assume that it was a presentation drawing submitted by Bulfinch to the committee in the spring of 1795. The drawing shows a building consistent as far as it is possible to tell with earlier estimates and descriptions except in the two minor respects mentioned above; and it shows a building the same in all major characteristics as the one constructed. The following minor changes were made, however, before the building

was constructed. Eight engaged columns, not shown on the plan, were placed in pairs at either end of the rear wall of the colonnade. Five rather than four windows were installed across the west end. Windows were placed in the drum below the dome, and the cupola was glazed. The decorative swags Bulfinch drew in the pediment were not completed. Simple Doric porticos were constructed on the east and west ends.

Sources of Bulfinch's Design

An inheritance from an uncle allowed Charles Bulfinch to travel in Europe between June 1785 and January 1787. Already having demonstrated an interest in architecture, he wrote soon after disembarking in London, "I have been engaged ever since my arrival in gratifying my curiosity with the sight of buildings."[24] Bulfinch was greatly influenced by the architecture he observed, particularly by the recently constructed Neoclassical buildings. There is general agreement among scholars that when Bulfinch described his design of 1787 as being "in the stile [sic] of a building celebrated all over Europe" he was referring to Somerset House in London designed by Sir William Chambers and built between 1776 and 1786. The central part of the river front of Somerset House is indeed the logical prototype for the south facade of the State House. Buford Pickens in 1970 made a good case that James Wyatt's Pantheon, built from 1769 to 1772, was the source of the interior design of the State House, and the celebrated building to which Bulfinch referred.[25] There are many similarities between the Great Room of Wyatt's Pantheon, itself modeled upon the church of Santa Sophia in Constantinople,[26] and the Representatives' Hall in the State House. The lower floor of the Pantheon parallels Doric Hall in many respects.[27]

Site of the State House and its Relation to Bulfinch's Design

Bulfinch states in his letter of 1787, that he has "attempted to give [his design] an air of magnificence without departing from economy." When he first proposed the plan, Bulfinch did not know the site the building would occupy. A flatter site in the old South End, William Foster's pasture, had been proposed, and even in February of 1795, a second site on the northeast corner of the Common was designated if Hancock's pasture could "not be procured on reasonable terms."[28] The site of the State House was not as commanding relative to Beacon Hill in the beginning. Until Beacon Hill was cut down in 1811, it rose behind the site almost to the level of the cupola (Figure 3). Yet the site overlooking the Common on the southern slope of Beacon Hill surely enhanced the air of magnificence Bulfinch sought, a fact that was recognized in the Columbian Centinel's description of the newly constructed building and its site:

> Indeed the beauty and advantages of this situation which induced the Legislature to make choice of it for the present building, are acknowledged by both natives and foreigners. It vies with the most picturesque scenes in Europe, and will bear comparison with the Castle hill of Edenburg, the famous bay of Naples, or any other most commanding prospect. The foundation of this building is about 100 feet above the level of the harbour, its elevation and size, makes it a very conspicuous object. It is about 60 feet above the level of the Mall, and from this situation it appears to most advantage.[29]

Original Configuration of the Bulfinch Building

The Columbian Centinel reported:

> The new state-house is an oblong building, 173 feet front, and 61 deep, it consists externally of a basement story, 20 feet high, and a principal story 30 feet. This in the center of the front is crowned with an attic 60 feet wide, 20 feet high, which is covered with a pediment: Immediately above this rises a dome 50 feet diameter and 30 feet high, the whole terminated with an elegant circular lanthorn, supporting a gilt pine cone, an emblem of one of our principal stapels [sic]. The basement story is finished plain on the wings with square windows. The centre is 94 feet in length, and formed of arches which project 14 feet; they form a covered wall below, and support a Colonade of Corinthian-columns of the same extent above. The outside walls are of large patent bricks with white marble fascias, imposts and key stones.[30]

Figures 1, 2, 7, and 8 provide the best visual documentation of the original exterior appearance of the State House.

The north facade of the new State House repeated in more two dimensional terms the design of the south facade. Pilasters, rather than freestanding columns, marked the central pavilion (Figure 6). At either end of the building, simple Doric porticos led to the first floor entrances (Figure 5).

Ground was broken for the State House on May 25, 1795, [31] and an elaborate cornerstone-laying ceremony followed on July 4th.[32] The building was first occupied on January 11, 1798.

Role of the Agents

To Dawes and particularly to Robbins fell the task of procuring supplies, paying craftsmen, and keeping the accounts. Although Bulfinch did a little of this, his main function was almost certainly to supervise execution of his design. Unlike earlier designers of buildings in America who left details of finish to carpenter/builders, Bulfinch was closely involved with many aspects of the construction of his building. Whether his work included preparation of construction drawings is unknown; none have survived.

Either Bulfinch did not routinely make construction drawings at this early stage of his careeer, but he presented his ideas directly through description, book plates or sketches to master artisans for execution, or if made, the drawings have not been preserved because they were used by workmen at the construction site.[33] Thirty years later, however, Bulfinch made a set of one hundred construction drawings for the Maine State House, but that was after his Washington D.C. experience which exposed him to Latrobe's extensive working drawings and was a project that Bulfinch did not personally supervise.[34]

Surviving receipts indicate that Bulfinch was paid $295.22 "for my services in attending to the building of said house" and $265 "on account of the State House" in 1797 alone."[35] All of the agents received some compensation for their services at the end of the project ($1,000 each in 1799 and $800 in 1800). Bulfinch was the only one to be compensated during construction, although there is some reason to believe that his earlier pay was deducted from his final grants.

Documentation of Original Construction

Our knowledge of the original configuration of the Bulfinch State House, and of the construction process, comes from several sources: original bills and accounts in the State Archives and in Baker Library, and the lengthy description published in the Columbian Centinel on January 10, 1798, excerpted above and below.[36]

The bills in Volumes 266 and 267 in the Massachusetts Archives provide a substantial amount of information about the construction of the State House. While some references are tantalizingly unspecific, from others it is possible to identify the supplier, installer, and painter of many of the elements of the building, and in the process to confirm the presence of the elements on the original structure.

For instance, John and Simeon Skillins billed for carving "12 Corinthian Caps for Pillasters" (Massachusetts Archives, Volume

267, page 43 [hereafter cited by volume and page number only]) for an unspecified location, but clearly additional to those they carved for the front of the building; carpenters John Stetson and Josiah Wheeler billed for installing "12 large pilasters back of house" (267:113); and Samuel Gore billed for painting 12 large capitals "in the back" (267:183). By correlating the information in these bills, it is possible to deduce that the rear pavilion was embellished with pilasters, rather than freestanding columns, a fact not readily discernible from the only early view of the north facade of the building (Figure 6).

It would be impossible to include all of the bills in this Historic Structure Report. A summary of those bills for original construction and for alterations and repairs up to 1849, particularly with regard to the evidence they contain of the configuration of the principal rooms, is included in the D.C.P.O. Team File. The following description highlights some of the findings and discusses some of the questions raised with regard to materials used in construction.

Brick Used to Construct Walls

The red brick walls of the State House may be constructed with some of the earliest machine-made bricks to be used in this country. The first patent for a brick-making machine was granted here in 1792, although machine-made bricks did not gain general acceptance until the second half of the nineteenth century.[37] The Columbian Centinel speaks of the use of patent bricks in the outside walls, and one receipt specifically mentions "machine bricks." The receipt seems to indicate manufacture of such bricks was not an easy task: John Francis acknowledged receipt on March 24th, 1797, of $50 "for labor, pain and exertions he aforded [sic] in making and burning machine bricks for the State House, having been promised a reward therefor."[38]

What kind of a brick-making machine might have been used is unknown, but presumably a machine would have turned out a more compact and regular product than hand methods. Perhaps the use of machine-made bricks has contributed to the durability of the exterior walls of the State House over the years, although the State House bricks are not noticeably different in appearance or hardness from other bricks of the period.

Bricks were purchased from a number of different suppliers: James and Edward Robinson of Dorchester (266:185), Samuel Clap of Dorchester (266:212), Jonathan Leeds (266:222), Joseph Lawler (Agents' Account Book, Baker Library), and Charles Storer (266:252). Thomas Fessenden & Co. and Samuel Sprague were responsible for the major brickwork, laying the 452,000 bricks (266:265), but many masons and stone workers are listed

in the bills including Herring and Blaney, Bradlee and Pierce, Nathaniel Heath and Wm. Hearsey (266:269, 270 and 273, respectively) and Daniel Tuttle (267:36, 37).

Foundation

The foundation below the brick walls was made with four feet of hammered stone.[39] At the time that the grade was lowered in 1855 "investigation showed that the building rested upon a footing of rubblestone laid dry, in a trench evidently made by running several furrows with a plow . . . . The same sort of foundation . . . which was found under the Old Brattle Street Church."[40]

Stoneworkers and Sources of Marble and Slate

The marble was obtained from the quarries of Josiah Dwight.[41] Available information suggests that Dwight's quarries were in West Stockbridge, Massachusetts. At least 80 tons of marble were cut to suitable size and brought to the site (266:160). The slates for the roof were supplied by Joseph Vales of Lancaster, Massachusetts (266:226). Major stone cutting and stone work was done by John Homer and Son (267:40).

The Colonnade: Design, Sources of Elements and Craftsmen

The columns of the colonnade were made from logs which came from the estate of Speaker of the House Robbins in Calais, Maine. The colonnade was designed with 12 free-standing columns (the outer four at each end of the colonnade were paired), and eight quarter-engaged columns placed in pairs on the wall behind the paired free-standing columns. (The central four pilasters under the colonnade were not part of the original scheme; they were added in 1867.) The 20 columns were very likely those hewn by David Green (266:211). They were bored by John Balch, a pump and block maker (266:19), and turned by Ephriam Thayer at a cost of $360.00 (266:26). John and Simeon Skillins carved the 12 full Corinthian capitals and eight three-quarter capitals for the colonnade, as well as the 12 pilaster caps for the rear of the building. Note: although all these capitals were replaced in 1960 with cast aluminum ones, a pilaster cap survives in the Architectural Museum at the Society for the Preservation of New England Antiquities. Two capitals are owned by a resident of Cape Cod, and the Smithsonian Institution has two columns.[42]

"Composition" Exterior Ornament

Some of the exterior ornament was of "composition." Charles Storer, a supplier of materials including ornamental stucco work and "wood" and "stone" composition, billed for:

45	Capitals for Venetian windows	393.75
4	Large Patteras for Colonade	80.00
4	Chimney tops	86.66
16	Attic Capitals	106.66

Although Storer's bill did not specify the material of these components, elsewhere Samuel Gore billed for painting the 16 "composition" capitals (267: 183) and masons, Samuel Sprague and Thos. Fessenden, who laid the bricks, also billed for setting four "composition" pieces. The latter pieces may be the four large pateras or roundels between the arches below the colonnade.

What the nature of the "composition" of the attic capitals and roundels might have been is open to speculation. In neither case, apparently, does the original material survive on the building. Documents suggest that the capitals were replaced in the 1840's with terra cotta capitals made in Worcester, Massachusetts, some of the earliest ornamental terra cotta to be manufactured in this country.[43] The roundels were described in 1914 as being made of Italian soap stone and recent examination of the roundels revealed an appearance consistent with soap stone,[44] leading to the supposition that the original roundels were also replaced at some point. Perhaps these elements were an early form of "artificial stone", possibly "coade stone" which did not prove very durable and soon required replacement. "Artificial stone" would have been a material as innovative in 1795 as machine brick.

Agent Thomas Dawes, an experienced mason, may have influenced the choice of the material, or Bulfinch, familiar with the use of Coade stone in England, could have suggested its use. Alternatively, Daniel Raynerd, stucco worker (see below), who also identified himself an "artificial stone manufacturer", may have been the source of the idea and the product."[45]

Carpenters Who Worked on the State House

A bill for carpenters work in 1796 and 1797 lists eight men, six of whom worked in pairs. Although not the only bill for these men, its amounts probably reflect their relative contributions to the project: Wheeler and Stutson, $3600; Amos Lincoln, $1200; Thos. Berry, $750.45; Willet and Bullard, $239.12; and Hunt and Burrell, $200.74 (266:264). Clearly Josiah Wheeler and John Stetson (or Stutson) were responsible for the most work. They framed the structure, built the roof and dome, and built and installed much of the exterior decorative trim (267:42, 113, 210). Amos and Jedediah Lincoln and Thomas Berry did much interior finish work.

Turners and Carvers; Artisans Working Jointly

Most of the turned work was carried out by Jonathan Howe and Son, and John and Simeon Skillins, who had earlier carved the figurehead for the U.S. Constitution, did the major decorative carving. In the case of the cupola, for instance, Jonathan Howe and Son were responsible for hewing and turning the eight "collums, turning the 44 Balisters and Bouring and turning the pine for the top of the Dome" (Figure 4). Once turned, this "Pine Cone" was carved by John and Simeon Skillins who billed $25 for it (267:43).

Like the pinecone on the cupola, the modillions were a joint effort. Thomas Stetson, Capt. John Stetson and Capt. J. Wheeler provided "136 feet of sawn stuff for Medillions," ready for carving. They then billed "for carting 2 Load of Medillions from Capt. John Stetson's Shop to the carvers" (266:190). John and Simeon Skillins made 482 modillions for the outside cornice (267:43). Amasa Davis carted "1 load from Skillings the Carvers to the State House for Capt. Wheeler [possibly not the modillions in question]" (267:200); Stetson and Wheeler billed for 382 feet Modillion and truss Cornish [cornice], and 510 feet of Corinthian Cornish and Entablature" (267: 113) and for "fitting 36 modillions for Pediment" (267:42).

Exterior Window Trim

Thomas Berry and his men worked "putting up the capitols on the windows outside the house," and they worked on the two porticos (267:32). If the 1831 elevation drawing (Plan 6) reflects the original condition of the windows, the arched windows of 1797 had scalloped tracery at the outer edge and mid bar of the upper semicircular sash.

The porticos led to the east and west entrances until the entrances were closed up in 1855. The east portico shown in the J.R. Smith drawing of 1811 (Figure 5) is flat-roofed and has two Doric columns and a Doric entablature. Above the roof is a semicircular fanlight. The west portico was identical.

Painting

Samuel Gore's detailed bill for painting (267:183) seems to confirm, as indicated in the 1805 watercolor of the building (Figure 1), that the exterior brick walls were left unpainted. The bill lists specific locations and the number of yards of painting required for each. Most of the exterior decorative trim is mentioned: the pediment, the dome, pillars and pilasters, balustrade in back, the 20 large capitals, etc. No mention is made, however, of painting exterior walls. Many parts of the building received three coats of paint. One item

seems to confirm that the dome, contrary to previous belief, was painted lead-colored from the start. Gore mentions painting the dome a fourth time, and adds the following entry "207 lb lead color L10.7." The idea that the wood shingled skin of the dome was originally whitewashed may be due to the fact that a bill exists for "whitewashing dome" in 1799. Very likely the latter bill refers to whitewashing the dome in the Representatives' Hall.

The dome is virtually the only area of the building where the color of paint used can be identified from the bill. Generally, Gore itemized materials separately from locations painted, so that while we can get some idea of the colors used, we cannot pinpoint their locations. There are, however, references to painting specific items "mahogany". For example, the outside doors, of which there were eight (three in the front and in the rear, and one on either end), and the rails of the Senate Chamber were so painted. This probably refers to grain painting in imitation of mahogany.

Interior of the State House, 1798

General Description of Plan

On the interior of the State House, the principal floor was divided into the simple, axial plan shown on Bulfinch's drawing of that floor (Plan 1). The Representatives' Hall formed the central square beneath the dome; the Senate Chamber occupied the east end and the Governor and Council shared the west end. Corridors flanked the Representatives' Hall and gave access via front and rear stairs to the principal floor from the first floor. On the first floor, Doric Hall was the major central space an the Secretary and Treasurer occupied the east and west wings. There were intermediate floors in the wings devoted to committee rooms. Bulfinch expressed the hierarchical importance of the principal rooms by using the Doric order in Doric Hall and the Representatives' Hall, the Ionic order in the Senate Chamber and the Corinthian order in the chamber of the Governor and Council.

First Floor

> The lower story is divided into a large hall or public walk in the center, 55 feet square and 20 high, supported by Doric columns -- two entries, each 16 feet wide, with two flights of stairs in each and at the ends Offices for the Treasurer and Secretary of the Commonwealth.
>
> -- The Columbian Centinel, January 10, 1798

Doric Hall

By 1826, the "Public Walk" had become known as Doric Hall. The name derives from the most conspicuous feature of the room: ten Roman Doric columns placed in two parallel rows from south to north dividing the room into three equal aisles. Although the present columns are reproductions in iron, marble and plaster, their form duplicates the wooden originals. The room, restored in 1897, now has much of the flavor Bulfinch intended for it (Figure 38). The lower third of the columns are smooth, while the upper two-thirds are fluted and filleted. They are set on high square pedestals and each supports a block of Roman Doric entablature. The four sides of each entablature exhibit triglyphs and guttae.

Originally the four corners of the room were formed into four high open arches, set diagonally. These disguised the brick piers which projected into the room on either side of the corner, and gave the room something of an octagonal shape (Plans 2 and 20). The arches did not, however, block the light from the windows within them. Earliest representations of Doric Hall show these arches unornamented and reaching to the height of the Doric capitals (Plan 17, Figure 37). On the north and south walls were three semicircular arches. The outer two contained windows. The wider, higher, center ones contained exterior doors. All were ornamented with molded imposts, moldings at the edges of the extrados, and keystones (Plan 15). The east and west walls each had two archways which communicated with the corridors beyond. These arches duplicated the configuration of the window arches on the other walls and their positions relative to the corner arches. Samuel Gore's bill for painting 620 square yards in the Public Walk suggests that the room was completely painted (267:183).

Corridors and Staircases

There is only one representation of the corridors outside Doric Hall in their original configuration, a greatly simplified elevation of the west wing, showing the front stairs and the wall behind between the front and rear stairs (Plan 6). Presumably, the east corridor was identical. The front stairs rose in three runs to the principal floor, the first run being against the outer (west) wall of the corridor. The lowest step and handrail curved outward in the manner typical of staircases in the Federal style. There were turned balusters and stair posts on both sets of stairs (267:14). In the center of the wall behind the stairs, an arched opening led to the rear stair hall and to the exterior door on the north side. Above the first floor, however, there was no communication between front and rear stairs. Both corridors have been altered many times and no original finish survives. Carpenter Amos Lincoln's bill tells us that the corridors were finished with "Dorick cornice,

. . . Daido, and plain floor," and double architrave moldings on the straight and arched portions of the door openings (267:60).

Other Rooms on First Floor and Intermediate Floor

There is virtually no information as to the original finish of the rooms in the east and west portions of the first floor. The Secretary of State's room was on the west side and the Treasurer's was on the east side (Plan 8). Each side originally had a central corridor running from the lateral east or west entry to the main (north-south) corridor on that side. Analysis of room assignments in 1798 (see description below) makes it virtually certain that, from the beginning, there were intermediate stories devoted to "Lobbies" on both sides of the building. (Lobby appears to have been the contemporary term for committee room.) The floor structure of the intermediate story traversed the middle part of the lower windows (Figure 65). Another indication of the intermediate story can be found on Bulfinch's plan (Plan 1), where he shows a door opening off the landing of the rear west stairs. Such an opening could only have communicated with an intermediate story.

Although such a construction seems awkward, Bulfinch's section drawing of the Maine State House of 1831, a building modeled on the Massachusetts State House, shows precisely this design (Figure 7). Classical symmetry and proportion were important to Bulfinch, to the degree that exterior design sometimes masked interior configuration. Another instance of this was his use of blind windows. The outermost windows under the colonnade and those in a comparable position on the rear of the building were blind, since they fell behind the niches in the corners of the Representatives' Hall.

The Governor's Room

The Governor's room, formerly the Council Chamber, and originally designated for the use of both Governor and Council, is among the most exquisitely beautiful and unique rooms in America. Its decoration, while Adamesque in derivation, has a vitality and originality all its own. The room is the least changed of any portion in the Bulfinch State House, and is intact in all but a few details (Figure 45, Plans 18 and 22).

The Columbian Centinel of January 10, 1798 stated:

> The Council Chamber is on the opposite quarter of the building, it is 27 feet square, and 20 high, with a flat ceiling; the walls are finished with Corinthian pilasters and pannels of stucco, these pannels are enriched with the State Arms, with emblems of Executive Power, the scale and sword of Justice, and

the insignia of Arts and Freedom, the Caduceus and Cap of Liberty. The whole is decorated with wreaths of oak and laurel.

Since there have been so few changes, the following description applies equally to the original configuration and the current appearance of the room. The room was finished with eight Corinthian pilasters, two at either side of the four corners. These were set on projecting portions of the dado, panelled to suggest pedestals. The rest of the dado was plain. The molded baseboard and the dado cap, embellished with a fluted frieze, continued around the pedestals. The two pilaster caps in each corner supported a section of Corinthian architrave and frieze, while the dentiled and modillioned cornice above continued around the room. One hundred and thirty-three modillions were carved for the Council Chamber by John and Simeon Skillins at a cost of $66.50 (267:43).

No bill for the pilaster caps has been identified. The capitals are not included in the major carving bill submitted by the Skillins. Even so, the Skillins cannot be ruled out as the carvers, for they appear to have submitted some unspecific bills, for example, requesting payment "for carving done at various times" (Agents' Account Book, Baker Library; 267:38). It is also possible that the eight pilaster caps were among the number furnished by Charles Bulfinch for the State House in one of the few instances in which he supplied materials for the building (Agents' Account Book, Baker Library, p. 20). The architraves of the doors were croissetted, and over the doors were entablatures which included a frieze of alternating plain and fluted portions and a dentil course.

There is a detailed bill from supplier Charles Storer for the stucco work in the room (267:108). (See D.C.P.O. Team File for a transcription of the bill.) The exact nature of the ornaments described in the bills as "stucco" has not been determined. According to Morgan Phillips, it is likely to be what would today be called plaster or composition. Possibly ornaments of several different mixtures were used. It is the "stucco" work in particular which makes this room unique in America. Contrary to the usual practice of the time, the ceiling was left plain and the walls were ornamented with "stucco". Virtually all of the "stucco" ornaments described in the bill can still be identified in the room. The plaster walls above the dado were divided into panels outlined with a "stucco" guilloche and ribbon ornament, accented at the corners and at a horizontal cross molding with "stucco" fans. These are the 460 feet of panel mouldings, the "18 half circular fans" and the "32 small ditto" detailed in the bill. The 71 feet of reed and ribbon molding embellish the sides of the chimney breast. The six large wreaths are found in the upper compartment of the wall panels and over the doors in the north

wall. The eight wreaths of laurel or palm are in the spandrels of the arched windows. The two trophies are within the large wreaths at the center of the north and south walls, the Caduceus and cap of Liberty on the north, and the sword and scales of Justice on the south. The State arms with ornaments are on the chimney breast, and the star with ornaments is over the door on the east wall. The 120 feet of quirked bead described in the bill may refer to the ornament found at the junction of the plaster walls and the arched window frames.

As Quinan pointed out in 1975, several lines of evidence suggest that Daniel Raynerd may have been the principal ornamental "stucco" worker on the State House.[46] Charles Storer's accounts record a payment of $50 on November 4, 1797 to Raynerd, the only "stucco" worker to be mentioned by name in the State House construction bills (267:107). Local tradition handed down in Wolfeborough, New Hampshire, where Raynerd moved after leaving Boston, attributes the State House "stucco" work to him. If so, Bulfinch was lucky to have an ornamental plasterer trained in England at his disposal. Perhaps Bulfinch even consulted him with regard to designs. Raynerd travelled to England to learn the trade in the early 1790's and returned to Boston between 1795 and 1797.[47] We do know that the "composition" ornaments were made and molded on the spot rather than being purchased from abroad.[48]

The current mantelpiece probably dates from 1812. We know that the original mantelpiece was painted regularly before 1812, and so, by implication, was made of wood. It was ornamented with two columns of "stone composition," and two corner blocks or "Blockings" and a tablet of "wood composition" (267:108).

Thomas Barry and his seven men were responsible for 893 man-days of carpentry work on the Council Chamber and adjacent stairs at a total cost of $1,521.75 (267:60). Samuel Gore's bill lists painting the Council Chamber "3 times over," and "4 pr. Blinds for Counsesell [sic] Chamber" (267:183). One of the historic photographs shows louvered blinds at the windows (Figure 44), possibly the same blinds painted by Gore.

The Governor and Council had their own staircase from the lower floor. The staircase, which no longer survives, was in the first bay east of their chamber. Appropriate to its function, its finish was more elaborate than that of the other staircases. The balusters were spiral turnings by Jonathan Howe & Son (267:14).

Representatives' Hall

> The Representatives' Room, in the center 55 feet square, the corners formed into niches for fireplaces; this room is finished with Doric columns

> on the sides at 12 feet from the floor, forming a gallery; the Doric entablature surrounds the whole, from this spring four flat arches on the side, which being united by a circular cornice above form in the angles four large pendants to a bold and well proportioned dome. The pendants are ornamented with Trophies of Commerce, Agriculture, Peace and War. The Dome is finished in compartments of stucco in a style of simple elegance. The center of the Dome is 50 feet from the floor. The seats for the Members are ranged semicircularly, and the Speaker's Chair in face of the whole.
>
> -- The Columbian Centinel, January 10, 1798

Of the three principal rooms, the Representatives' Hall has undergone the most change. It is therefore correspondingly difficult to be certain of the room's original form. There are several representations which depict the room before major changes, but these unfortunately are not exact enough to clarify details of original finish (Figures 49 and 50, Plans 17 and 22). We do know that the room was entered from the side corridors through doors near the south niches (Plans 1 and 4). These were finished with rectangular architraves. The Speaker's desk originally faced the north, and on north and south walls there were three long rectangular windows below and three smaller rectangular windows above. A band of ornament echoing the cornice ran around the room below the galleries and across the north and south walls.

On the east and west were the side galleries mentioned in the Centinel description. The east gallery was less deep than the west gallery, because on the east side the space had to be shared with the Senate gallery. The galleries were finished with a balustrade in which turned balusters alternated with solid panelled pedestals for the Doric columns.

The corners contained arched niches on the first level. Samuel Sprague, Thomas Fessenden and Co. "set . . . stone nitches in the Representatives chamber, . . . fixed foundation for do" and "lay[ed] four stone hearths" (267:38). John Homer and Son, stone cutters, supplied the niches and hearths (267:40). "Stucco" work on the niches is mentioned in Charles Storer's bill for ornamental "stucco" work: "four niches with architraves, imposts, keystones and trusses" (267:108).

The configuration of the "fireplaces" in the niches is of great interest since the scheme was highly unusual for the time in this country. For several reasons, it is very likely that the "fireplaces" were actually stoves. A single bill from Samuel Gore refers to painting "back of fireplaces in Repres. Room" (267:183). On the other hand, a bill from metal workers,

Cordwell and Wells, for installing various parts of stoves (267:38) included "Making New Joint and Cap to stove 30/ & puttg up do 6/ in Reprts Chamber."[49] There are no references to the installation of chimney pieces in the Representatives' chamber as there are for the Council and Senate chambers. Nor do the painting bills from the early 1800's which invariably mention "painting around the fireplaces" in the Council and Senate chambers include any bills for similar work in the Representatives' Hall. It is interesting to note that there were stoves in the niches in the likely prototype for the Representatives' Hall, Wyatt's Pantheon. When Bulfinch designed the Representatives' Hall in the Maine State House, which was modelled after this hall, he showed stoves "in the form of broken columns: in the corner niches."[50]

The finish of the gallery level of the Representatives' Chamber included 12 gallery columns (six on either side) which were turned by Jonathan Howe and Son (267:216), and 152 balusters turned by Ephriam Thayer (267:26). Work on two of the niches on this level is mentioned in the ornamental "stucco" bill for the room as "2 niches with ornaments, heads and imposts" (267:108). Although no bills described work on the area around the upper niches, physical evidence and an elevation which predates the major renovation of the room (Plan 17), suggest that the pilasters flanking these niches are original. The Doric cornice with triglyphs and mutule blocks was made and installed by Amos and Jedediah Lincoln (267:60). The finish of the flat arches, spandrels and circular cornice appears today as described in the original stucco bill. The "144 raffle leaves in cornice, . . . 4 trophies in Spandrils, . . . and the 4 ornaments in ditto" mentioned in the bill are still there. (See D.C.P.O. Team File for transcription of stucco bill.)

Above the cornice, it is difficult to be certain how much, if any, of the finish is original. It is not possible, as it is in the Senate Chamber and Governor's Office, to match all the items and amounts of ornament listed in the "stucco" bill with the actual decorative elements on the domed ceiling of the Representatives' Hall. (Note: the "circular, circular" listed in the bill was Storer's way of describing the double curved plaster base coating of the dome.) When the ornament listed in the bill is located on a scale drawing beginning with "the large flower in center. . .[and continuing with] 27 feet of beads,. . .130 feet Fans,. . ., 48 flutes and pateras,. . .54 guilloche and Flowers,. . .184 feet of festoons of oak and ribbons. . .and 40 large Flutes" (267:108), the general lay-out of ornament is similar to that actually on the dome, but only the fans and the festoons of oak and ribbon seen to describe ornaments present on the dome and their approximate location. There are several marked disparities or omissions: 40 large flutes are mentioned in the bill, but only 36 large

flutes are present on the ceiling; there is no central flower, and there are no flutes and pateras. Alterations to the domed ceiling for better ventilation are known to have occurred by the mid-19th century (see below). It is possible that even the earliest representations of the ceiling (Figure 50 and Plan 17) do not show the original finish. It is likely, however, that the greatest changes were made to the domed ceiling during the Washburn renovations of 1867. He made other sweeping changes to the finish of the Representatives' Hall and is known to have installed the circular openings at the outer ends of the large flutes, as part of his ventilating system. In all probability, he installed the central grate and the immediately surrounding ornament as well. Full determination of the age of existing elements of the dome will have to await a more complete physical examination of the plaster work and substructure.

The only reference to a chandelier in one of the principal chambers is Cordwell and Wells' bill for supplying and putting "Bras Chain -- Rod & Sheave (for candler) in the Representatives' Chamber" (267:64).

There appears to have been a "canopy" finished with cloth over the Speaker's desk in the center of the south wall (267:210). The canopy's function was probably that of a sounding board.

Members were seated on benches (267:213), and these were painted "mahogany" by Samuel Gore (267:183). Whether the floor was sloped from the beginning to allow the representatives seated in the rear a clearer view is uncertain. There is one reference to "raising the floor," in Josiah Wheeler's carpentry bill (267:210), but it follows mention of the Speaker's canopy and might refer to raising his desk only on a platform. In 1811, seats and "risers" were made for the chamber by Wheeler (1811, roll 64, account 371), but it is not known whether these were additional risers or the first to be installed.

Senate Reception Room, Former Senate Chamber

> North of the center room is the Senate Chamber, 55 feet long, 33 wide, and 30 high; highly finished in the Ionic order; two screens of columns support with their entablature a rich and elegant arched ceiling. This room is also ornamented with Ionic pilasters -- and with arms of the State, and of the United States, placed in opposite pannels -- it is accomodated with a gallery for public use.
>
> -- The Columbian Centinel, January 10, 1798

The Senate Chamber is the best-documented of the three principal rooms in terms of the original construction. Entries in bills from Charles Storer for ornamental stucco work

(267:108), and from the principal carpenters for the room, Amos and Jedediah Lincoln (267:60), can readily be matched to extant features in the room (Figures 57, 59, 60 and 62). (See D.C.P.O. for transcriptions of these bills.)

There were originally nine arched windows in the room. These are the nine Compass (meaning arched) windows for which fittings including mahogany seats were made by the Lincolns (267:60). A wooden dado with fluted frieze ran around the walls of the room. The four Ionic columns, turned by Jonathan Howe & Son (267:14) and finished complete by the Lincolns, support a full entablature. North and south of the column screens, the original configuration of pilasters and cornice survives. The portion of the east wall between the screens of columns had fireplaces rather than engaged columns flanking the central window. These fireplaces are shown on Bulfinch's plan of the room. Storer supplied "2 stone chimney pieces" for the Senate Chamber. These were probably installed by the Lincolns, for their carpentry bill also includes reference to chimney pieces in the Senate Chamber. The chimney pieces were replaced in 1808 (see below), and hence any evidence of the appearance of the original ones is long gone. Since those installed in 1808 were of stone, perhaps those supplied by Storer were actually stone composition. Like the mantelpiece parts he supplied for the Council Chamber, those in the Senate were painted regularly before 1808.

The west wall of the room was drawn by Bryant in 1853-1854 as it appeared prior to any known alteration of the original design (Plan 16). In place of the engaged columns which now support the cornice at the front of the gallery, there were four square posts, evenly spaced and extending from the gallery balustrade to the cornice (Figure 57).[51] Below, there was a central doorway. This doorway was probably flanked by the two stoves which were fitted by metalworkers Cordwell and Wells for the Senate (267:48, 267:64). We know that masons John Homer and Son provided four hearths for the Senate (267:40 of 1799) rather than just two for the fireplaces, so it is likely that the two stoves occupied a permanent location in the Senate. The 1826 drawing of the Senate by Alexander Parris (Plan 3) shows recesses on either side of the door, and Bryant's elevation (Plan 16) and the 1852 print of the Senate Chamber (Figure 57) show the recesses with arched tops. Although the early bills do not clarify when the recesses were constructed, it is likely that Bulfinch might have been responsible for the recess/stove design here too. When he drew the elevation of the Maine State Capitol Senate Chamber, a room modeled after its Massachusetts counterpart, he placed pyramidal stoves in arched recesses in a comparable location below the gallery.[52]

The ornamental plaster work of the arched ceiling in the Senate is one of the great treasures of the Bulfinch State House.

Divided by "284 feet of golosh [guilloche] and flower ornament" into 15 rectangular compartments, three abreast and increasing in width from narrow rectangles at the lowest point to squares at the highest point, the ceiling presents variations on a theme of concentric ornament in a rectangular field. The corners of the principal compartments are filled in with "fans with center flowers" (36 in all). A band of leaves divides the remaining space: "oak wreaths" in the oval spaces, and "laurel leaves" in the circular ones. There are now grates, installed for ventilating in the 1860s, at the center of the ovals. Originally, there may have been no ornament in the center of the ovals, for no listing in the "stucco" bill seems to fit that location.

There were "3 large flowers" in the center of circles at the apex of the ceiling. Two of these survive. The center one was replaced in the Victorian Period. The three lowest compartments on either side display the "curtains with oak wreaths, Ribbons &c" mentioned in the bill.

A bill for work relating to the installation of the new chimney pieces for "mendg, Plaistering & papering etc in senate chamber" seems to indicate the use of wallpaper in the room by 1808, if not before (1808, roll 53, account 330).

Remaining Parts of the Interior of the Bulfinch State House

Intermediate Stories

The Columbian Centinel of January 10, 1798 continued:

> Besides these principal rooms, there are about 20 smaller, plainly finished, for the use of committees.

While there are occasional references to "the east lobby, the west lobby, the senate lobby" and such in the construction bills, the best source of information on the original layout of the rest of the State House is the committee report on room allocations of 1798.[53] The descriptions included in the report verify the presence of intermediate stories east and west of Doric Hall. The report also indicates a room above the room north of the Council Chamber, the two occupying the same amount of vertical space as the Council Chamber. Figure 65 shows one of the original lobbies on the intermediate story as it appeared in the late nineteenth century. The floors are also indicated on Plans 16, 18, and 21. The following is a list of the 17 rooms mentioned in the 1798 report, their location, and the occupants assigned to them.

West Side

First floor

rear: two rooms for extra committees
front: Secretary of State's room

First Intermediate floor

Lobbies No. 11, 12, 13, 14 for the committees of the House of Representatives

Second floor

rear: Secretary of State's additional room

Second Intermediate floor

rear: Chamber No. 8 committee on petition for New Trials

East Side

First floor

rear: rooms for committee on incorporation of Parishes and a room for the committee for sale of Eastern lands.
front: Treasurer's office

First Intermediate floor

Lobbies 6, 9, 10 for the joint committees of both houses
Lobby 7 for the committee on incorporation of New Towns
Loby 8 for the committee to examine and pass on accounts

Second floor

rear: Secretary of State's additional room

Second Intermediate floor

rear: Chamber No. 8
committee on petition for New Trials

The intermediate floors were all removed during the restoration of the Bulfinch State House in 1897 under the assumption that such a "makeshift" arrangement could not have been original.

Interior Work in Unspecified Locations

Many of the bills for the State House construction, (approximately three hundred in all), do not indicate the location where work occurred or materials were used. For

instance, Charles Bulfinch was paid for supplying composition ornaments including "1 pair of ram head vases, 1 do [ditto] Ivy vases . . . 2 tablets . . . 10 feet gutes [guttae]" (266:310). From other bills we learn that portions of the interior of the State House were wallpapered (267:47, 197); that carpets were supplied for such places as the Representatives' Hall (267:80) and Senate (267:193 of 1799); and that carpenters frequently made furniture for the State House. Additional pieces were purchased from such furniture makers as Bright and Vose & Coats (267:193 of 1799, for example). See the summary of bills from 1795 to 1849 in the D.C.P.O. Team File for further information as to the content of the bills.

Dome

The dome retains its initial shape. Wooden ribs and the plank sheathing survive underneath a later covering of fireproof plaster.[54] These are, in all probability, the original structure of the dome with minor replacements, since no references have been found which suggest that a large scale rebuilding of the dome occurred, except the repairs of 1831 mentioned below. Supported in the beginning on triangular wooden trusses which carried its weight to the brick walls of the attic story, the Dome became a major attraction. The Columbian Centinel of January 10, 1798 stated, "The stairs are spacious, and two flights of them lead to the top of the outer Dome, 170 steps from the foundation. This flight affords a view of one of the finest scenes in nature." Indeed, the fact that the view from the Dome replicated the vista from the original crest of Beacon Hill became one of the arguments for lowering Beacon Hill in the early nineteenth century.[55]

The Centinel concluded, "Too much praise cannot be bestowed upon the Agents who have directed the construction of this superb edifice, for their economy, liberality and patriotism. -- The materials are mostly produced in our country, and the composition ornaments were made and moulded on the spot."

Alterations to the State House, First Half of the Nineteenth Century

The following discussion of alterations is drawn from information in the original bills (see D.C.P.O. Team File) and legislative documents. Alterations are grouped chronologically by type.

Exterior

Dome

The first major alteration of the State House was the sheathing of the dome with copper in 1802. Former Agents Dawes, Bulfinch and Robbins were empowered to examine the roof and recommend measures to secure the dome against fire and to prevent leakage.[56] They found "no defect to occasion leaking but such as arises from natural shrinking of the wood work." They recommended covering the platform of the lantern and the junction between the dome and the roof with thick sheet lead and covering the dome with metal. They gave estimates for the cost of tin, copper and lead as sheathing materials, and advised the use of tin owing to the "uncertainty respecting copper in this climate." Cost was probably also a factor in their recommendation of tin, (undoubtedly meaning tin-coated iron), which cost one-fifth as much as the other metals. However, copper was chosen by the General Court,[57] and 6,000 lbs. of it were purchased from Paul Revere for $4,231.00. As an additional fire prevention measure, a well was dug in the State House yard and a pump capable of raising water to the dome for storage in cisterns was purchased. The agents were paid $237.00 (4% of the cost of the work) for their services. In 1831, Charles Wells supervised the recoppering of the dome and the coppering of the roof of the attic story:

> The old copper and shingles were taken off the dome and the boarding repaired, [and] then sheathed with new boards, -- covered with new copper, and the copper painted three coats. The shingles were taken off the pediment cornice and the roof of said cornice covered with copper.[58]

The bill for paint materials seems to confirm that the dome was in fact painted yellow or bronze color by this time, as stated in guidebook descriptions of 1819 and 1828 respectively, rather than the original lead color.[59] Ellen Mudge Burrill, early twentieth-century State House historian, confirms that when the paint was removed from the dome at the time of regilding in 1906, lead color was found to be the lowest layer and the subsequent layers were yellow.

Colonnade

Replacement of the wooden floor of the colonnade with one of hewn stone was authorized by the legislature in 1810, and in 1837 the legislature authorized coppering the roof of the colonnade.[60] Bills which would verify that these changes were actually made have not been identified, however. The above are two of a number of cases in the nineteenth century in which it is impossible to ascertain from available information whether work authorized was actually carried out.

Exterior Wall Paint

In 1825, the exterior brick walls of the building were painted for the first time. Carpentry work for the job, including building the staging, was carried out by John Wheeler. Mason Henry Blaney removed "all such soft, defective and scaled bricks as were not proper to receive a coat of paint, and replaced them by good, sound and hard bricks," and painters Gore and Baker gave the entire exterior of the building three coats of paint and put a fourth coat on each end.[61] According to a painter who examined the bricks in 1913, there was white paint under the layers of yellow paint, the bricks having been yellow from c. 1855 until 1918.[62] The earliest known description which refers to exterior wall paint color is dated 1828. It states "The body of the building is painted a portland-stone color".[63] Portland Stone must have meant Portland limestone, a greyish-white stone.

Interior

Council Chamber

As previously stated, installation of the present marble mantelpiece probably occurred in 1812, since bills for painting the original mantelpiece (very likely made from wood with "wood" composition and "stone" composition embellishments) stop in 1812 and changes to the fireplace in the Council Chamber were authorized by the Legislature in 1812.[64]

In 1838, the original private stairs to the Council Chamber ascending from the first floor immediately to the east of the chamber were removed, and replaced by a smaller set of circular stairs to the north. The removal provided badly needed additional office space to the Secretary of State on the first floor. Three plans of unidentified authorship in the Massachusetts Archives depict the work (Plans 8, 9 and 10), although minor changes were made before construction.[65]

Representatives Hall

Galleries

Until 1858, when the number of Representatives was stabilized at 240, an ever increasing number of legislators had to be accommodated in the Representatives' Hall, reaching a high of 635 in 1837. In 1803, carpenters spent 76 man-days "altering the representative's gallarys" (1803, roll 43, account 282).

More substantial changes occurred in 1812, when a gallery was built at the north end of the chamber and another one built over the existing one on the east.[66] In 1829, John H. Wheeler "enlarged Galaries in the Representatives' chamber and made extra seats" (1829, roll 101, account 146). In 1832 and 1833, another new gallery was made on the north side of the

chamber;[67] and in 1835, additional seats were made in the western gallery.[68] Figures 49 and 50 show subsidiary galleries below the east and west galleries.

In 1835, accommodations were made for reporters. John Wheeler made "recesses from corner of Representatives' Chamber for reporters"; as is so frequently the case, the bills are not specific enough to pinpoint the location of the work, but it is likely that the north corners on the second level were formed into circular recesses and fitted up with seats and desks.[69] A print made in 1856 (Figure 50) shows people sitting within the arched opening in the northeast corner, and the Bryant plan (Plan 23) shows passageways to the recesses in the north corners. It is not known what changes were required in the original finish of these areas, or whether these were the two corners which contained niches in the beginning. The carpenter's bill also includes $4 paid to "Mr. Upjohn for Design". Richard Upjohn's account book confirms that he designed a niche for the House of Representatives in 1835.[70]

Seating Arrangement

The existence of "risers" and therefore a sloped floor in the Representatives' Hall as early as 1811 has already been mentioned. Some time between 1826 and 1838, documents indicate that orientation of seating was reversed, for reasons that are not clear.[71] The Speaker's desk, previously at the south, was moved to the north wall. The change may have occurred in 1826, when John Wheeler "altered seats and made allys" (1826, roll 95, account 133). On the other hand, the change may have been made in 1829, when Joshua Holden made "162 ft. settees" and "21 ft. circular [settees]" for the room (1829, roll 102, account 209); or in 1833, when Asher Benjamin designed a new table for the Speaker and new desks for the Clerk on the right and the Committees on Engrossed bills on the left.[72]

Miscellaneous Alterations 1811 and 1846

Several alterations were carried out in 1811, according to a Resolve of the Legislature.[73] These included the constructing of "niche with pilasters and columns," apparently to be a memorial or "monument" (1811, roll 65, accounts 194, 196, 198); and replacement of the earlier canopy over the Speaker's desk with a varnished copper one (1811, roll 65, account 197; roll 68, account 438). See summary of bills in D.C.P.O. Team File for further reference to minor alterations.

In 1846, the Massachusetts coat of arms was placed over the Speaker's chair.[74] In order to do so, it was necessary to close up the middle upper window on the north wall. .

Senate

The first alteration, an intriguing but unexplained item, was the construction of "false" doors in the Senate and Gallery in 1801 (1801, roll 46, account 282).

The 1808 replacement of the two chimney pieces already mentioned sheds interesting light on the design methods of the day. Asher Benjamin billed mason Henry Blaney "for drawing plan and making a model in wood for tow [sic] chimney pieces which have since been cut in stone and set in the Senate Chamber" (1808, roll 58, account 330). William Homer did the stone cutting (roll 58, account 339) and Blaney, the installation.

In 1846, the sargeant-at-arms was directed by legislative resolve "to procure new window frames and sashes for the senate chamber; said sashes to be made of hard wood and double on the east side and north end of said chamber".[75] Earlier reports had indicated that the windows in the East wing were badly deteriorated. Bills verifying that the work was actually carried out have not been located, however.

Alterations, Other Locations

Minor alterations, such as the installation of a Doric fireplace in the Secretary's office in 1833,[76] were made from time to time in the rest of the building. By the 1840's, accounts indicate that the pressure for more space was becoming severe; rooms previously reserved for storage in the attic and basement were fitted up for use. The library expanded into a room in the east cellar in 1846,[77] and partitions were installed in the attic in 1845 (1845, roll 119, account 354). Perhaps in relation to some of these improvements, Ammi B. Young billed for "Examining [the] State House building and professional services" in 1847 (1847, roll 121, account 423).

Heating and Ventilating

Heating and ventilating the State House was a process of repeated revisions and improvements. From the beginning, many rooms were supplied with stoves in addition to fireplaces. There was a Franklin stove in the Council Chamber, for example (267:48). Some of these were permanent installations, such as in the Senate, while others, like that of the Council Chamber, were seasonal, with workmen performing yearly the task of setting up stoves in the fall and removing them to storage in the spring. There are references to purchase of specific types of stoves in addition to the Franklin stove. There were a Pollack stove (1808, roll 58, account 346) and a Russian stove in the Representatives' Hall (1821, roll 88, account 276), and a Canada stove elsewhere.

The first attempt at a more comprehensive solution came in 1826, when Alexander Parris furnished plans and estimates for "warming the Senate Chamber and the House of Representatives by means of hot air stoves."[78] Parris recommended placing a hot air stove of "the largest size" in the cellar to warm the Representatives' Chamber and one of "the second size" in the Senate Chamber.[79] He provided plans of the two chambers showing the location of flues, and also a plan "of the Doric Hall through which the flues must pass to the Representatives Chamber" (Plans 2, 3 and 4). The work was clearly carried out as specified in the Senate Chamber. A "Wakefield" "hot air stove" was installed in the northernmost niche on the west wall (1827, roll 96, accounts 222, 210, 217, 186, 183, 175, 174). No bills, however, have been identified for the purchase of a large hot air stove for the cellar, nor for construction of the flues above it to the Representatives' Chamber. Stoves in the Representatives' Chamber were replaced with new ones in 1827-1828, and "stucco-work and stock repairing nitches" were required (1828, roll 98, account 219). It may be that new, perhaps larger stoves in the Representatives' Chamber itself, rather than a furnace in the cellar, were deemed sufficient.

By 1837, however, Parris' recommendation was heeded. John Wheeler billed for "cutting away floor &c. for Furnice under Dorick Hall, Making Moulds and Cold Air flue, putting Hot air flue, and zinking over the same, piecing out Floors & Cornish &c." (1827, roll 111, account 480). The flues were located on either side of the central arch in Doric Hall (Figures 13 and 14), whereas Parris had recommended placing them in the piers of the corner arches (Plan 2). It is uncertain how the flues vented into the Representatives' Chamber at this stage.

A new furnace replaced the hot air stove in the Senate in 1850.[80] By 1858, there was a single furnace in the northwest corner of the Representatives' Hall.

Ventilation

Ventilation of the State House became a subject of concern as early as 1834 when the recently-formed Committee on Public Buildings was directed to find ways of improving ventilation in the house.[81] Bearing in mind that over six hundred legislators were accommodated in the Hall in the mid 1830's, it is easy to see why measures were needed. The committee's response, to hire J.H. Wheeler to make "Slides in Risers to Admit air to the Center of the Representative's Chamber" (1835, roll 109, account 72), seems modest. However, four years later, Wheeler made "a ventilator cutting through Cealing in Rep West Gallery" (1839, roll 113, account 410), and two years later, his son, Gillam B. Wheeler, billed for "taking out ventilators in Cealing of Rep. Ch. Cleaning Oiling & Puting in" (1841, roll 115, account 474). Several more times in the

1840's ventilators were installed in the Representatives Chamber. Those put in in 1843 required "cutting away timbers Cutting through roof and cealing putting up pipes Closeing around pipes in roof . . . putting in pulleys and lines to ventilators under flore" (1843, roll 117, account 397). The ventilators themselves were comprised of 280 pounds of galvanized iron and 200 sheets of galvanized tin (1843, roll 117, account 398). Installation of two more ventilators in the Representatives' Hall and two in the ceiling of the Senate was authorized in 1844,[82] perhaps the four Emerson Ventilators which were installed in 1848 (roll 122, account 401). It is likely that some of these installations involved changes to the finish of the domed ceiling. In 1849, the proposed ventilating work (described below) required that the discharging shaft open at the center of the ceiling with the "current central ornament being retained [already a grate, it appears] and the rosettes, etc. at the outer part of the circle being restored.[83]

In 1849, a more comprehensive solution to the problem of ventilating the Representatives' Chamber was proposed by Joseph E. Billings (Plan 11). The accompanying report makes clear just how concerned people had become in the mid-nineteenth century with the need to ventilate interior spaces.

> The great amount of sickness and mortality which have visited the members of congress, being nearly double that of an equal number of persons, under similar conditions, may be . . . very properly attributed, in a great measure to the bad ventilation of the capitol.
>
> It is well known that a considerable number of members of this legislature, at each session, are compelled to ask leave of absence on account of sickness, accompanied by such symptoms as may be fairly charged to the influence of an exposure to impure and confined air. In fact, there can be hardly a member who escapes entirely these evils, or who if he is enabled to get through a whole session without complaint, will not, sooner or later, suffer from it in his health or strength.[84]

While the bills to document that the scheme proposed by Mr. Billings was completed have not been located, it is known that similar measures involving the introduction of gas jets to create an air current and placing flues under the speaker's desk were in place by the early 1860's, and that gas was first introduced to the Representatives in 1849.[85]

Additions to the State House

Washington Temple

In 1827, the Washington Monument Association, a private organization, commissioned a statue of George Washington by the sculptor, Chantry. After some deliberation, the association was permitted to construct a small structure called a "temple" to house the statue on the north facade of the State House at the rear of Doric Hall. That way, the statue could be viewed upon entering the south doors of the State House.[86] The temple, constructed in 1827 and designed by Alexander Parris, occupied the three central bays of the first floor level of the State House and the cellar beneath. Projecting 25 feet to the north at its greatest point, the temple's key feature was a central dome-shaped vaulted space (Figure 39), a structure described by Parris as "spheroidal and rotative vaulting [in reality a small masonry dome] [which] has been advantageously introduced into some public buildings of England."[87] The dome was finished with coffering and had a central skylight. The statue itself was placed on a pedestal in an apsidal space immediately to the north of the dome. At either side of the domed space were subsidiary spaces finished with coffered arches. The "temple" was entered through the three central arched openings in the north wall of Doric Hall formerly occupied by windows at the sides and an exterior door in the middle. The exterior configuration of the "temple" is not known, although plans for the subsequent addition in 1831 to either side suggest that the apse form protruded at the center of the rear wall.

The Commonwealth accepted responsibility for care of the statue building;[88] and under the terms of the agreement, if the "temple" ever ceased to be used to house the statue, the statue was to revert to the Town of Boston.[89]

Rogers Addition

Fire was recognized early as a threat to the State House. There were approximately half a dozen minor fires in the first half of the nineteenth century in the building, one set by a visitor to the dome. Measures to safeguard the building began as early as 1802 and included coppering the dome, installation of cisterns in the dome, purchase of a fire engine, and repairs to defective chimneys or flues. Construction of a fireproof addition was first authorized in 1818.[90] It was not until 1831, however, that such a structure was built. Four fireproof rooms were constructed at the rear of the State House, two on either side of the Washington Temple.[91] The architect was Isaiah Rogers who received $40 for his plans (1831, roll 105, account 165) (Plan 5). The addition was 94 feet long and 25 feet deep, constructed with masonry foundation walls three feet thick, double brick walls, (the exterior ones of face bricks), and vaulted brick ceilings in the cellar and main floor above,

eight and sixteen inches thick respectively. The addition incorporated at its center the Washington Temple. The north elevation of the addition repeated the blind arcade design of the original north wall (Figure 6), but substituted rectangular windows for the arched windows of the original north facade. The decorative features mimicked those of the south facade: keystones and impost belt courses on the arches and four roundels, executed in freestone. A wooden balustrade fashioned after the one over the colonnade ran along the edge of the coppered roof. Window heads and sills were of freestone, floors were of flagging stone, and exterior doors and shutters were of wrought iron.

The contractors were James Hunt, housewright, and Noah Porter, mason. Charles Wells was the superintendent of construction. The cost of the building was $6,919.33.[92]

At the same time as the Rogers addition was being contemplated, architect Solomon Willard drew plans for construction of a fireproof "safe room" at the rear of the first floor of the west wing (Plan 6), for an estimated cost of $2,122. The alteration must have been considered as an alternative or adjunct to the rear addition, but was never completed.

Pressure for State House Enlargement, Rebuilding or Relocation

Three times during its history, the Bulfinch State House has escaped demolition or abandonment as the seat of government. The first threat occurred from the late 1830's until 1852, when there was agitation to move the government to a more central location in the Commonwealth. Legislative committees reported in favor of removal in 1839, 1843, 1851 and 1852.[93]

Concurrently, the government was rapidly outgrowing the Bulfinch State House, but the question of enlargement tended to be put on hold while there was a possibility of relocation. In the meantime, additional useable space was obtained by "finishing off portions of the cellar and attic which were previously used for store rooms".[94] By the early 1850's, however, "all room of that character which [could] . . . be spared [had] . . . been taken."[95] Pressure for space was becoming intense to the point that "with regard to committee rooms, [the] degree of inconvenience . . . felt . . . [was] getting intolerable."[96] Some officials and committees were accommodated in common passageways, and "one of the library rooms [was] . . . a basement so damp during the wet season, that mould collects upon the books, and the health of persons [was] endangered."[97]

In 1851, the Committee on Public Buildings submitted a plan by architect Gridley J.F. Bryant for placing two added stories over the Rogers addition.[98] That plan, like other earlier

proposals,[99] was not adopted. One important reason for considering an enlargement was to provide dry and fire safe storage for state documents and for the ever increasing holdings of the State Library. In 1852, a committee was appointed to procure plans and estimates for a fireproof addition.[100] The committee presented three alternative plans by Towle and Foster,[101] and recommended the one for an enlargement the height of the Bulfinch building to extend north to Mt. Vernon Street and to wrap around the Washington Temple and Rogers addition. The committee felt strongly that the Washington Temple should not be modified or shaded,[102] and hence the U-shaped plan was proposed. The plan was adopted by the Legislature, and $65,000, the estimated cost, was appropriated.[103] Gridley J.F. Bryant was chosen as the architect. Bryant immediately proposed several changes in the design of the addition, and submitted plans and a model to the Governor and Council. Chief among the changes were to set the east and west walls of the addition two-and-a-half feet inside the walls of the Bulfinch building; to add rusticated granite facing to the basement story; and to place turrets at the northwest and northeast corners of the addition. The first two changes were readily approved, but the turrets were never constructed.

Bryant's design was sensitive to the original State House, and fireproof throughout (Plans 13-24; Figures 9 and 10). The central pavilion on the north facade repeated in two dimensional terms the major features of the colonnade and arcade of the south front, but introduced oval windows at the top of the central bays and tall arched windows in the slightly projecting end bays. Elsewhere the fenestration and trim are similar to that of the original structure. However, both the exterior, and interior decorative features of the Bryant addition were executed in cast iron, a fact which added greatly to the expense of the building (total cost of the addition was $243,203). Applied at a time when cast iron trim was the rage, the metal not only provided an unusual decorative quality, but made the building more fireproof than if made of conventional materials.[104] The destruction of the building in the 1890's is particularly unfortunate, since buildings decorated completely with cast iron are relatively rare.

The addition was constructed of brick above the foundation. The first, second and third stories were built of groined arches supported by brick piers or free-standing cast iron columns (Figure 67). The upper rooms were barrel vaulted. All windows and doors and their frames were of cast iron. Only the floors, laid over the vaulting, were of wood. The interior finish of all the rooms was plain plaster, except the library which was elaborately decorated with cast iron ornament (Figure 68). The interior was to be painted "a cold gray stone color on its walls, ceilings and partitions; the whole of which [was]

. . . to be bounded in courses in imitation of stone."[105]

The large area over the Rogers addition was to be covered with glass at the roof level, according to Bryant's specifications, but whether this was actually done is unknown. The building was heated by a steam apparatus.

Several changes in the Bulfinch building were made in conjunction with the Bryant addition.[106] The former rear stairs at the north ends of the corridors flanking Doric Hall were remodeled so that the corridors could continue into the addition. The east and west entrances were closed up; their porticos removed; and the hallways leading to them incorporated into adjoining offices. On the west side an entrance was substituted on the basement level (Figure 26).

In 1855, in order to bring the foundation of the original building into harmony with that of the addition, the grade was lowered by five feet around the Bulfinch building, and a foundation of dressed rusticated granite installed. Plans for the work were prepared by architect Joseph M. Richards, who was chairman of the Board of Commissioners on Enlargement of the State House. Segmentally arched windows, aligned with the windows above, were placed in the outermost two bays at each end of the south facade and across the end facades of the building. The floor of the arcade was lowered by eight inches.[107] A terrace with stone balustrade was constructed a few feet in front of the arcade, and steps were built up to the terrace at the center front and on each side (Figure 11). The granite was prepared at the state prison.

Although the new underpinning of the Bulfinch building was only intended to improve the appearance of the building, it was soon discovered that the foundation of the south front had been seriously weakened by the overflow from a cistern in the cellar. The overflow ran directly under the foundation, causing the southeast corner to settle two and one-half inches. The new work allowed the problem to be rectified and also strengthened the arcade:

> The flooring of the arcade [had been] fitted in with loose cobble stones, probably as the easiest method of disposing of them, causing thereby a settlement of the piers. An attempt [was] made to more thoroughly ensure the safety of the arcade by a new sub-foundation and underpinning, and with front and side buttresses.[108]

These buttresses must have been the foundations of the new front and side stairs.

Proposed Changes in Circulation and Floor Space, 1858

Plans prepared by architect Edwin Lee Brown in 1858 propose installing a circular staircase in one of the north niches in Doric Hall so that direct access to the Representatives Hall could be gained from Doric Hall.[109] Brown's cover letter suggests enclosing the colonnade or the area over the Rogers addition to provide more space for the use of committees. Brown's proposal is of interest even though there is no indication that the work was carried out, because it shows just how quickly space became an issue again after the Bryant addition was completed.

New Cupola, 1859

In 1859, the original cupola was found to be in such a decayed state that rebuilding was necessary. An architect was employed to prepare plans and specifications.[110] Although the name of the architect has not been uncovered, the cupola design he recommended represented a change from that of the original cupola (compare Figures 11 and 12). The new cupola was by some reports one-third larger than the old one, although elevation drawings of the building made before and after its installation minimize the size difference. Like its predecessor, the new cupola had four arched windows flanked by engaged columns which surmounted a balustrade. In the new cupola, however, a hemispherical dome was inserted below the capping finial, and the engaged columns and their bases were set forward from the balustrade.

The design of the new cupola was criticized almost from the beginning. The commissioner overseeing the alterations of 1867 called it a "bloated aftergrowth" and recommended restoration of the original design.[111] The cupola was finally rebuilt to its original configuration in 1897.

Ventilating Measures in the 1860's

Just as the pure air movement in the nineteenth century reached a crescendo in the mid-1860's, so did arguments for improving the ventilation of the House and Senate chambers. The avoidance of vitiated air, that is, air previously breathed by someone else, was the paramount concern.[112]

> The sanitary history of the legislature of 1864 is a startling commentary upon the danger of allowing such a state of things to continue. To say nothing of the large numbers sick during the session, and those who are known to be suffering from impaired health, consequent upon inhaling the vitiated atmosphere of the House, the number of deaths actually brought to the notice of the House was very surprising. Within

> three months no less than five members deceased. What would be thought of the same rate of mortality, apart from the casualties of conflict, in a regiment of soldiers? Could men be readily found to enter upon employment so extra hazardous? The House consists of two hundred and forty members; a regiment of soldiers numbers one thousand. At the ratio of legislative deaths a regiment would loose two hundred and fifty men, or one quarter of its whole number, within three years term of enlistment. A colonel who should establish and continue his camp in a situation as unwholesome and dangerous as the Representative's Hall, would be unworthy of his position, and deserve the exercration of the civilized world. And yet the servants of the State have for years suffered as gross an indignity.[113]

This impassioned preamble introduced the report of the committee appointed in 1864 to improve the ventilation of the hall of the House of Representatives. The document included a 96 page treatise on ventilating by Shedd and Edson, civil engineers, with recommendations for a complete ventilating system for the State House. These were the basis for the improvements installed under the direction of J.H. Shedd in 1867.

In the meantime, however, partial measures were taken before the seating of the legislature in January of 1865.

> Conductors [were] placed under the elevated seats, running to shafts constructed at each of the front corners of the hall, through which, by means of a draught created by the heat of fires in open grates, it is believed the carbonic acid and other impure gases, as also the light dust and foul air near the floor, will be carried off, the current being always outward.
>
> The flues under the Speaker's rostrum [were] also changed. The heated air, which formerly came direct, [was] carried to the extreme rear of, and through a chamber formed at the window, introduced at the top of the sash. Before being admitted this heated air pass[ed] over wet surfaces and thus acquir[ed] a proper degree of moisture to render it a natural and wholesome atmosphere.[114]

3.3 Washburn Renovations (1867)

Need for Increased Space in the 1860's

Although the Bryant addition was only a few years old, the need for more space became an issue again in the 1860's and the Bulfinch State House entered its second period of endangerment. As a report of 1865 stated, the Bryant addition

> . . . failed to relieve the most pressing wants. Immediately upon completion, the greater part of the added premises were absorbed by the executive department, the library and offices for the secretary and treasurer. Thus though built with a special view to provide for committees, they soon found but few desirable or available rooms were left for them, and that they were as badly off as before.[1]

Future of the State House Debated by Opposing Factions

Many wanted to remodel or rebuild the State House to modern taste. Opposing factions in the state government debated the future of the State House from 1864 to 1867 before action was taken, and acrimonious charges continued until 1870. It is beyond the scope of this Historic Structure Report to unravel the merits of the various charges. However, there apparently was truth to architect William Washburn's contention that his plans of 1864 for remodelling the building were suppressed for three years by advocates of a new State House. His plans for renovating the interior while preserving Bulfinch's exterior were eventually adopted by the Legislature. The survival of the Bulfinch State House was due in part, to the persistence of William Washburn, and in part to the post-Civil War financial condition of the Commonwealth. Only a very few people urged preservation of the building for architectural merit.

Proposals for Remodelling or Rebuilding

Five different committees and one commission considered the altering of the State House between 1864 and 1867. Washburn's plans for doubling the useable interior space were first presented to the committee of 1864.[2] Only those plans dealing with changes to the west wing were lithographed and made known to the Legislature, however, and the partial proposal as presented was defeated.

In 1865, several committees stressed in their reports the need for a comprehensive solution to the ventilating, heating, and space requirement. The next year, plans were presented by Gridley J.F. Bryant which offered such a solution at a total cost of $136,000.[3] He proposed to enlarge the House of Representatives by pushing the south wall outward and

rebuilding the colonnade and arcade farther to the south. He would also add a mansard roof to the building to accommodate a new story of committee rooms above the fourth floor, rearrange existing space to provide more rooms, and install a comprehensive ventilating and heating system. This scheme was rejected by the Legislature principally because of the proposed alterations to the exterior appearance of the building and because of the fifth floor committee rooms which would require additional stair climbing for the legislators.[4]

In 1866, a commission was appointed by the Legislature "to consider the whole subject of remodelling or rebuilding the State House". [5] Its report in 1867 proposed three alternative plans prepared by Gridley J.F. Bryant and Alexander Esty. Two of the plans called for extensive remodellings costing $375,430 and $759,872, respectively, and one proposed rebuilding at a cost of $2,042,574. All three designs reflected the original Bulfinch design with modifications, chief of which were extensions to the east and west and the raising of the dome above a colonnaded tambour. The raising of the dome was recommended for two reasons: so that the State House would once again dominate surrounding buildings in height, and so that the configuration of the dome would approach that of more correct models such as the new dome of the United State Capitol.[6]

After review of the report, members of the Committee on the State House felt they could not recommend to the Legislature any of the above three plans owing to the Commonwealth's financial condition. The committee was, however, in favor of building a new state house as soon as the Commonwealth could afford it, since the present building "would not for any great length of time satisfy the improving taste of the public with regard to the architecture of our public buildings."[7] In the meantime, they recommended accommodating the pressing needs for space, and improved heating and ventilation at the least possible expense; specifically they proposed adopting William Washburn's plans to complete the work for $150,000.

Washburn's Plans Adopted

Washburn's plans had only recently, after a lapse of three years, been brought before the State House Committee. They were adopted after the following sequence of events.

According to Washburn, the Bryant plans for more expensive remodellings were put forth by those in favor of rebuilding in order to make it seem that nothing could be done with the old building at a reasonable price, and that for the same reasons, Washburn's plans of 1864 were suppressed from 1865 until 1867.[8] Documents do indicate that up until May of 1867, the Committee on the State House had not seen Washburn's plans and

were unaware of their existence:

> Mr. Washburn wished the committee would give him an opportunity to show them the plans. They could not be found. But at his urgent suggestion, although it was nearly the middle of May, he was allowed one week to present his plans; and accordingly, about a week after, he came in and presented plans he had drawn up in the mean time showing where and how all the improvements could be made.[9]

Washburn further offered, when the committee expressed uncertainty that the work could actually be completed for $150,000, to post a bond guaranteeing to do so. Once convinced, the committee gave unanimous support to his plans, and one of the members, Mr. Banning, "urged Mr. Washburn to 'leave no stone unturned' to carry the improvements agreed upon; that being, in his opinion, the only means of defeating the immediate erection of a new house at a cost of millions to the State.[10]

In order to convince members of the legislature, who were similarly skeptical that the building could be effectively remodelled for the price, Washburn

> . . . laid a copy of his plans on the counter of the postmaster at the State House, where he explained them to the members with whom he was acquainted, and to others who inquired or listened, until the passage of the resolve was severed, using the same facts as to the character and quantity of room gained, and the same pledges as to its cost and completion in season for the next legislature, that had so effectually influenced the mind of the committee.[11]

The work was authorized by the Legislature on June 1, 1867. The president of the Senate, Joseph Pond, and Speaker of the House, James Stone, were appointed commissioners to oversee its completion.[12]

Proposed Work Extended

The committee of the House and Senate, which declined to recommend any of the Bryant and Esty alternative plans and instead advised the legislature to adopt Washburn's proposal, had very specific objectives in mind for the renovation. The work was intended to repair the building and make it comfortable and serviceable until such time as the Commonwealth should decide to build a new State House.[13]

The following work was set forth in the Washburn plans and prescribed by the Committee. Thirty new committee rooms were

to be created by rearranging the staircases and entrances, partially remodelling the wings, and building new rooms in the area between the Bulfinch and Bryant portions of the building. The heating and ventilating in the entire building was to be improved. A much-needed passageway was to be added connecting the Governor's rooms and the Senate on the third floor. Washrooms were to be installed.[14] The Governor's room (now the Council Chamber) was to be made more elegant and the ceiling was to be raised. The floor of the House of Representatives was to be remodelled and the seating improved. A fireproof room was to be built in the basement to house Civil War records, and the interior and exterior were to be painted.

With the exception of the recommended work in the Governor's room, none of the proposed work was intended to embellish the building. In fact, the committee specifically prohibited any changes to the Representatives Hall, the Senate Chamber, the Council Chamber, and Doric Hall, these being, as they said, "as good as they could be."[15]

However, before the renovation was completed, a substantial amount of embellishment and other work not originally contemplated had been carried out. Two factors occasioned the further work. First, before the resolve authorizing the renovation had been passed, a number of other improvements were suggested by legislators. The commissioners overseeing the renovation were, therefore, authorized to make "such other improvements as . . . [they] deem necessary," [16] and the Legislature appropriated $20,000 for the additional work.[17] Second, the commissioners, Pond and Stone decided to award separate contracts for the various types of work rather than to contract with Washburn for the entire job. The bids from contractors were so much lower than expected that the work originally estimated at $150,000 could be had for under $100,000. The commissioners were left, therefore, with over $70,000 to spend at their discretion.

Whether or not the commissioners took liberties with their responsibilities was the subject of debate for several years. There is no question, however, that architect William Washburn did take certain liberties.[18] From the beginning, it seems, Washburn had his own ideas about what should be done to improve the State House and set about implementing them somewhat brazenly and even deviously. For example, Washburn testified to the claims committee:

> . . . there were other things in the intermediate story I wanted to have done. I wanted to take those floors out and reduce them in thickness. They were very thick. The committee at first entertained the proposition, but upon reflection and after asking me how much it would cost to do it they decided to leave

> the improvement out and would not allow me to entertain the idea of taking those floors out of the intermediate story. I felt the house would not be perfect, would not be what I wanted it to be, unless the change was made, and therefore, when I made the figures, I made them large enough to cover that thing. The committee were unwilling to do essential things here, which I felt ought to be done, and so I had to do a thing I do not like to do, -- that is, not to tell the committee the whole truth; but as I was not under oath, I was not bound to.[19]

The prime example of Washburn's boldness was in his plans for changes to the finish of Senate and House Chambers where changes had been specifically forbidden by the committee of 1867. Of the Representatives' Hall, Washburn said, "I was determined that that thing ought to be done and I had determined that if I had anything to do with the State House, it should be done."[20] Of course, Washburn did have to persuade the two commissioners to approve the changes, but that was, according to Washburn, easily accomplished. As soon as the commissioners learned that there was extra money to spend, they began to consider what might be done to the House and Senate Chambers, in spite of the earlier prohibition against changes. Washburn stated, "I happened to have a design on hand, and upon seeing that, they immediately said 'they would do that.'"[21]

Alterations and Improvements Carried Out Under Washburn

Renovation work began in July, 1867 and was substantially completed in time for the seating of the Legislature in January, 1868. Fortunately, plans of the State House and illustrations of most of the principal rooms before and after 1867 are available which help to document the changes. These will be cited in the room by room description of renovations, below.

Representatives Hall (current Senate)

Washburn dramatically altered the lower walls of the Representatives' Hall by removing the windows and adding a new surface of wooden blocks cut to imitate rusticated stone. These walls were further fitted with twelve niches and six new doorways: the new east and west central entrances which replaced the earlier more southerly entrances and the auxiliary entrances in the corners where there had previously been niches. (Compare Figures 49, 50, and 55, Plans 17 and 29). The new walls were made necessary in part because Washburn removed the existing north and south walls of the Representatives' Hall and rebuilt each three feet further outward in order to install passageways outside the chamber

from the Senate side to the Governor's quarters, an awkward omission in Bulfinch's original design. Segmentally arched openings in the south wall allowed light from the windows across the passageway to reach the Representatives' Chamber (Figure 51). The greater breadth also allowed north and south galleries to be built on the upper level. The architect faithfully repeated the major features of the design of the east and west galleries. The new columns, however, were iron and were placed in pairs rather than individually. The small galleries installed at an earlier date in front of the east and west galleries were removed (Figures 10 and 11). Perhaps in an attempt to relate to the exterior design of the Bryant addition, Washburn used elliptical windows at the rear of the new north and south galleries, similar to those on the Bryant addition's north facade.

Senate (current Senate Reception Room)

In the Senate chamber, Washburn brought the center of the room into four-way symmetry by installing engaged Ionic columns on the east and west walls like those which formed the screen of columns on the north and south (compare Figures 57 and 58, and Plan 16). The reasons for the change included a desire on the part of the commissioners (presumably influenced by Washburn) "to redeem the Senate Chamber from the uncouth deformity of the gallery"[22] by substituting the engaged columns for the simple square posts between the balustrade and cornice which previously supported the cornice. Columns on the west wall would naturally have to be balanced by similar ones on the east wall, and their installation necessitated removing the no-longer-needed fireplaces on that wall. Commissioner Pond further suggested that the three windows on the east wall be closed up in order to eliminate a source of painful glare. Pond died in October before the work was completed, perhaps clearing the way for a compromise with regard to the east windows. The center one was closed up (Figure 61), and the other lateral two were mostly covered with shades. The west wall was further embellished by bracketed and modillioned cornices over the central door and arched recesses, and the mitering out of the balustrade above those cornices, and by bracketed pediments over the flanking doors at the north and south ends of the walls. It was very likely Washburn who formed the arched recesses into semicircular niches. It may have been in order to accommodate the greater depth of the niches that Washburn set the wall around them forward by some inches.

Council Chamber (current Governor's Room)

The "old and unique finish of the Council Chamber"[23] was preserved, but the ceiling was frescoed (Figure 44). Some of the gilding reported as having been performed in the Governor's

area may have taken place in this room.[24] The marble mantelpiece was removed from the chamber and sold during the 1867 work, but was quickly repurchased and reinstalled.[25]

Governor's Room (Current Council Chamber)

The "arched ceiling of the room north of the council chamber"[26] was removed, and that room and the one above it were made into one high-ceilinged room for the Governor. The cornice was made of stucco in a style similar to that of the Council Chamber,[27] and the doors were finished with bracketed and dentiled pediments (Figure 47, Plans 18, 22 and 25). The ceiling was frescoed, and the chair rail picked out in colors. Either of these may have included gilded work as well. The marble mantel was removed from the Governor's room during the renovation and sold to Samuel Way for $20.00.[28]

Washburn installed a new columned ceremonial entrance between the Governor's area and the east lobby of the House Chamber (just visible through the open door in Figure 47, see also Plan 22). Doors throughout the Governor's area were replaced with up-to-date ones with long top panels and pronounced panel moldings (Figure 48).

Doric Hall

Doric Hall had seen changes just prior to the Washburn work when the battle flags were moved from groupings around the columns to niches in the east, west, and north walls and to the Washington Temple (Figure 39). The flags were arranged and the arched openings covered with large panes of glass and fronted by metal fences under the supervision of architect Alexander Esty.[29]

Because the lateral arches on the east and west sides were filled with flags, Washburn cut new arches at the center of each side to communicate with the corridors (Compare Plans 17 and 29). These were finished with molded plaster soffits (Figure 41). The lateral south entrances to the building were moved inward one bay so that they opened on Doric Hall rather than the corridors, allowing for the ends of the corridors to be turned into rooms (Compare Plans 20 and 32).

The most notable change to Doric Hall was the raising of the ceiling. As mentioned above, Washburn was anxious to gain vertical space in the intermediate story. He must have replaced the wooden structure of the ceiling of Doric Hall with cast iron beams, just as he did in the lateral ceilings. He further emphasized the increased height by recessing the ceiling between the beams into molded coffers or panels (compare Figures 37 and 40). The floor of the hall was paved in marble. The pedestals at the bases of the columns were

painted to imitate marble (Figure 41).

Ceilings Raised in Lateral Wings

The height of the intermediate story in the lateral wings of seven to eight feet was unacceptable to Washburn. The old, deep wooden beams were removed and iron ones installed. The architect further found that the old three-inch by five-inch joists could be reused laid on edge on the iron beams to form a three-inch thick plank floor. This construction was one of several of Washburn's structural schemes later critized as unsound. An additional height of four inches could then be gained by recessing the ceiling up the joists except where cross beams intervened (Figure 65).[30] To further increase the comfort of the intermediate rooms, the windows were enlarged up to the belt course on the exterior.

Improvements in Other Areas of the State House

A report by Commissioner Stone in 1868 enumerated the following other improvements:

> the enlargement of the steam-generating apparatus; the extension of the system of steam-heating to the 'new part' on Mount Vernon Street; the reconstruction of the front entrances; the improved construction of the green room; the entire construction of the blue room from waste space; important and extensive changes in the basement, by which a large amount of room [was] rescued from waste and uselessness, and made serviceable and convenient; removing the outside stone stair-cases on Mount Vernon Street, and the inside iron stair-cases, by which convenient entrances to the whole building by well lighted corridors, and additional windows in two important basement rooms, and two entirely new and desirable rooms on the main floor are secured; covering with marble tile the floors of the . . . corridors [adjoining Doric Hall] and of the basement; construction, in the upper part of the dome, of a tank of the capacity of six thousand five hundred gallons, there by introducing a full supply of water for the water closets, urinals and washbowls placed in all the department offices . . . ; the connection of the boiler-room, in the cellar under the 'new part'; the construction of a convenient document-room with capacious alcoves; and extensive improvements in various portions of the 'new-part' . . . ; and providing better security against fire by putting in a complete system of iron water-pipes for extinguishing fires, having attached, at convenient points in each story of both wings a sufficiency of

> rubber hose (in the aggregate, more than a thousand feet), to reach every room in the building, and capable of being worked by a steam-pump, or by force of the head obtained by the elevation of the water in the large new tank in the dome, or by a steam fire-engine of the Boston fire department, which may be attached to a branch pipe on Mount Vernon Street, and also provision for instantly extinguishing fire in the dome by filling it with steam by means of a pipe leading from the boiler.[31]

The Green Room (Figure 69) and the Blue Room (Figure 70) were among Washburn's most architecturally interesting constructions.

Exterior Changes

The most important exterior change was the raising of the roof by approximately three feet to accommodate the new Green and Blue rooms for committees on the fifth floor. These were lighted by skylights and small windows in the upper walls. The balustrade of the colonnade was continued around the perimeter of the roof in order to disguise the presence of the windows just above the cornice. The twenty-six chimneys and ventilators which previously dotted the roof were removed so that "the original elegance of the architecture"[32] would reappear (Compare Figures 11 and 13).

Changes to the south wall under the colonnade reflected the interior alterations and perhaps was an attempt on the part of Washburn, to improve upon Bulfinch's design. One quarter columns were placed on either side at the corner formed by forward projection of the wall. Doors to the colonnade were moved one bay more centrally. This made it possible to partition off rooms at the ends of the corridors on either side of the Representatives' Hall, but left the colonnade accessible from the passageway behind the hall. Door heads of the new exterior doors reiterated the bracketed projecting cornices installed in the Senate Chamber (Compare Plan 12 and Figures 11, 13, and 14). Windows lateral to the new doors were of arched design. Concern that the bricks for the new wall match the bricks of the Bulfinch era led mason William Adams to make a trip "to Danvers . . . to see about furnishing the bricks for the front . . . ; to get some large enough to match those on the front."[33]

Perhaps the most interesting feature of the colonnade as Washburn redesigned it were the four plain, unfluted central pilasters on its rear wall. When Washburn filled in the area between the Bulfinch and Bryant portions, he must have removed the pilasters from the original north facade. He reinstalled four of the capitals carved by the Skillins, on the front of

the building, on his four central pilasters within the colonnade. (Note: one of these capitals, removed in 1960, is now in the Architectural Museum at SPNEA.)

New doors with circular central panels were installed in the reconstructed front entrances. These, the commissioner's report boasted, were more appropriate than the inelegant old ones. Further construction of interior vestibules removed the need for winter storm sheds "which formerly gave the principal entrance the appearance of a temporary stable" [34] (Figure 12).

Ventilating

The ventilating system installed in the Senate and Representatives' Hall, the commissioners' report of 1868 declared, was "perhaps the most complete success ever accomplished in this country."[35] This same system with a few thoughtless alterations was greatly criticized in 1883 by the Committee on Public Health. Perhaps the best way to describe the system is to quote from that committee's report.

> The system of distributing the hot or cold air from . . . [the] blower . . . [to] the Hall of Representatives, is the worst possible that could be devised; it hardly seems credible that such a plan could have been adopted by men of ordinary intelligence or common honesty. The plan is substantially as follows: the hot or cold air, as the case may be, is brought from the basement in a large tin pipe, and forced under the floor of the Representatives' Hall, circulating freely among the floor timbers, joist, dirt, and rubbish that is usually found to collect in such localities. Under the seat of each member is an opening, covered with perforated tin, to admit the air from beneath the floor, and what does not otherwise come through cracks in the floor or escape into the partition walls at the sides of the chamber, is admitted through the perforated tin under each seat; this method of heating and ventilating a hall or room by taking the air from beneath the floors is a novelty in the science of ventilation. It would seem that taking dead air from beneath the floor was of itself bad enough; but your Committee found, upon further investigation, that the sources from which the <u>outside</u> air was obtained, were very bad. The blower which supplies the air before mentioned, is situated in the basement -- a dark, rough, unfinished room . . . , at the end of which is a well room formed by the different wings of the State House. At the bottom of this well-room is an opening into the

> cesspool or drain. . . . The means for carrying off the foul air from the House of Representatives, Senate Chamber, and other rooms, was found to be very defective in its plan, and what was still worse, the central shaft that runs from the dome of the Representatives' Hall to the cupola, the only outlet whatever for the impure air, was covered over with boards, so that no outlet existed whatever for the foul air to escape except through doors and windows of the rooms below. This will explain in a measure the terrible pressure that has been felt by members of the House, at times, when thirty-five thousand feet of air per minute has been forced into the Hall, with no outlet. . . . The space over the Hall of Representatives is boarded over, making a chamber with windows on the sides. Into this dead-air space empties two or three large ventilators from side rooms in the State House, they having no connection with the central shaft, and no outlet to the open air; so that what impure air escapes comes down through the openings at the circumference of the dome into the Representatives' Chamber. It amounts in effect to ventilating the smaller rooms (if so it may be called) into this hall. . . .[36]

Washburn's Role Evaluated

Although the completed remodelling of 1867 was generally accepted as successful, the process by which it was carried out and the cost overruns of more than $100,000 made it the subject of hearings, investigations, and recriminations for the next five years. Chief among the causes of trouble was the fact that the commissioners decided not to award a comprehensive contract of $150,000 to Washburn, but rather to award several separate contracts and to pay Washburn $7,500 for his services. When the initial bids from the various contractors totalled far less than $150,000, the commissioners amended the contracts to provide for additional unspecified work and made Washburn responsible for putting a value on the work after it was accomplished.

Commissioner Pond died halfway through the project, further adding to the confusion, and the two principal contractors were dismissed for inefficient work. Both Pond and Stone were guilty of some impropriety (the workmen installed a stove at Stone's home, and Pond's firm supplied the tin piping). Furthermore, testimony seems to corroborate Stone's charge that some of the contractors wanted "to break away from the terms of their contracts and cruise for settlements upon the shoreless sea of public plunder."[37] Washburn, however, received high praise from the surviving commissioner and from fellow architects.[38] He made a claim for further compensation,

stating that because the commissioners employed inefficient contractors and allowed additional work, not specified in the contracts which he had to document, both Washburn and his partner/son had been employed day and night for 16 months on the job. Washburn eventually received $1500 in further pay.

By the 1890's, Washburn's remodelling of the State House was in great disrepute, and many of his changes to the interiors were removed during the restoration work of the late 1890's. From our vantage point, however, Washburn's role in saving the State House from destruction outweighs the culpability we might attach to some of his alterations to interior finish. In the Senate Chamber, now the Senate Reception Room, many would agree that his installation of full-height engaged columns on the east and west walls actually improved Bulfinch's design.

Other Alterations Prior to 1888

Several noteworthy alterations occurred between the Washburn campaign in the 1860's and the next major round of additions after 1888. In 1874, the dome was gilded for the first time.[39]

In 1881, the basement was remodelled at a cost of $45,000; "the floor of the basement was brought down to a common level and numerous additional office rooms and needed accommodations were obtained".[40] Where there had been no windows in the basement walls below the arcade (Figure 14), two paired windows were installed to light the rooms within. All basement windows on the south and east sides of the Bulfinch building were made longer by the equivalent of one course of the rusticated granite at this time, (Figures 13 and 14); the central basement window on the east side was replaced with an entrance door.

Passenger elevators were placed in the State House for the first time in 1885.[41] Their installation required alterations to the staircases (Figure 63 and compare Plans 25 and 33). The new staircases ascended around the elevator shaft.

3.4 Brigham and Spofford Extension (1889-1895)

Preliminary Planning

Because of the rapid growth of state government in the post-Civil War period, the space provided by the alterations of 1867 was soon outgrown. In 1882, the former Way estate, at 11 Mt. Vernon Street, was acquired for additional office space and renamed the Commonwealth Building.[1] Four years later, the Governor and Council were directed to devise a general plan for improving accommodations of the government, "provided, that the present state house, and particularly the southern front thereof be substantially preserved."[2] They recommended the erection of "a substantial and commodious structure in the rear of and in connection with the present building."[3] For that purpose, the lot bounded by Hancock, Mt. Vernon, Temple, and Derne streets, the site since 1849 of a massive granite reservoir, was purchased in 1888 (Figure 16),[4] and the Governor and Council were authorized to prepare plans.[5]

Architectural Competition

In November, 1888, measured drawings of the existing State House by Charles Brigham and John Spofford were published (Plans 27-35), and shortly thereafter a competition for the design of the new structure was announced.[6] Almost immediately, the architectural profession protested the conditions of the competition on the grounds that (1) there was no assurance that an expert advisor would aid in the choice of the winners; (2) ownership of the plans would have to be relinquished, and there was no assurance that the successful competitor would be employed; and (3) compensation to the second and third place winners was too small. The protest was signed by over one hundred architects from Boston and throughout the country.[7] Nevertheless, thirteen architectural firms chose to enter the competition. Architects Carl Fehmer and Frank Chandler were employed to advise the Governor and Council in the choice of winners.

Competition Winners

On January 30, 1889, Governor Oliver Ames, sometimes called the father of the Brigham extension, announced the winners of the competition.[8] Brigham and Spofford received the first prize of $1,500; John L. Faxon, the second prize of $1,200; and Henry S. McKay, the third prize of $900. There is some confusion with regard to the second place winner. Although Governor Ames reported Faxon the winner, the American Architect and Building News published a drawing by Ralph Adams Cram labeled the second prize design[9] and Cram's design is one of the three sets of code-labeled competition drawings which survive in the State Archives.

Winning Designs

All three of the winning designs presented buildings with distinctive features of their own. None was as much of a reiteration of the features of the existing building as the structure actually built. Cram's plan called for two domes, a copy of the Bulfinch dome at the north end of the building and a larger, richly decorated, colonnaded dome at the center of the building. McKay proposed a rather Neo-classical building with central and end pavilions and a tile roof.[10]

Brigham and Spofford's building plan incorporated a low dome at the north end, and several small turrets, almost minarets, in the central courtyard. Otherwise, their design was more in harmony with the existing building, and it is surely primarily for that reason that their design won the competition.[11] Greater familiarity with the existing building may have given Brigham and Spofford an advantage in terms of planning the extension. Their measured drawings of November 1888 were presumably published by the State before the competition in order that plans of the existing building would be available to the entrants.

Brigham and Spofford's original designs show a separate building labeled the "Department Building" connected at the second and third level to the rear of the Bryant addition by two enclosed bridges supported by rusticated arches which spanned Mt. Vernon Street. The building was comprised primarily of offices grouped around a staircase hall and central courtyard. The Governor and Council recommended that the Legislature adopt Brigham and Spofford's plan with modifications, and a small appropriation was made in order to perfect the plans.[12]

Final Plans and their Rationale

On April 10, the "substantially perfected plans" were presented to the Legislature. The plan that evolved between January and April, 1889, was essentially that of the building constructed and was evidently the result of a joint effort on the part of the architects and consulting architects, the Governor, the Council, and the Legislative Committee on the State House.[13]

As Governor Ames explained, the perfected plan:

> retains the best features of the admirably arranged department building of the original Brigham and Spofford plan, and includes valuable suggestions made by the expert architects who assisted in awarding the prizes relating to important monumental interior features and to general external treatment. The principal aim has been to design additions in the

> classical spirit that animated the renowned Bulfinch, the architect of the present structure, which has always been so much admired for its dignified and beautiful style; to do as he might have done had he been called upon to enlarge the building; and to design the new portions in perfect harmony with the existing structure so that the whole, when completed, will present a consistent and artistic group . . . No attempt at any unnecessary or uncalled-for architectural display is made, and the present gilded dome, the familiar landmark and pride of so many of us will still be the only dominating feature of the group.[14]

The several Renaissance Baroque decorative features of Brigham and Spofford's original plan, the rusticated arched surrounds enframing together the second and third story windows, and the decorative cartouches in the arches above the fourth story windows, were eliminated, along with the low dome and the minarets. For the most part, decorative features of the exterior were restricted to close copies of the elements of the Bulfinch building rendered in marble.

Brigham and Spofford described the exterior treatment thus:

> The department building has been brought into closer relationship with the present State House by covering over more of Mt. Vernon Street, leaving it, however, free for transit and entrances. By doing this a greater harmony and unity of design has been effected, as will be seen at once by the new elevation on Temple Street, which is only secondary in importance to the one on Beacon Street, and which shows a symmetry and balance of parts that cannot fail to be commendable, and a simplicity and dignity such as we hope would not have displeased Mr. Bulfinch himself, the architect of the original edifice in the spirit of whose design we have studiously endeavored to work out this problem.
>
> The central feature of this facade on Temple Street is surmounted by a pediment of grand proportions, and is flanked by colonnades, repeating, in a measure, the handsome Corinthian ordinance of the front.
>
> These features are not unlike in general effect the central portion of the famous peristyle of colonnade front of the Louvre in Paris, the one opposite the Seine front, designed by Claude Perrault; and as in that simple and grand example, the pediment is the central feature, so here the pediment constitutes the only break in the sky line on this side, and does not

> at all detract from the value and importance of the present dome.
>
> These colonnades, the one combined with the archway of Mt. Vernon Street, and the other with the entrance portico and steps opposite the probable extension on Ashburton Place, afford a perfect balance, while the continuation of the building to the north is made to harmonize as strictly as possible with the Senate end of the building . . . .
>
> The Derne Street front will have a colonnade similar to the front, and entrances by grand staircases to the ground floor.[15]

In spite of the above enthusiastic description, Charles Brigham later made it clear that he would have designed the east facade differently had he known that it would be viewed across an open park rather than from the narrow confines of Temple Street.[16]

What had begun as a separate building with connectors was now to be an addition to the original structure. This arrangement allowed for the adoption of the "important monumental interior features" suggested evidently by consultant architects Fehmer and Chandler. The chief result was the opening of architectural vistas a portion of the length of the second floor of the building through a series of successive central monumental spaces.

As Brigham and Spofford described it:

> The slight lowering of Mount Vernon Street at the crown of the hill [will bring] . . . the second floor of the new building . . . but a little, i.e., five steps, above the floor of Doric Hall. The rear wall of this hall, where the battle flags and statue now are, is removed without at all injuring the architectural effect of the hall itself, and this noble room will now become a grand vestibule, opening into a hall called the Senate Stairs, thoroughly lighted from above, and on either side are broad marble staircases leading to that part of second floor now assigned exclusively to the Senate and Governor and Council. Beyond this and over Mount Vernon Street is the central and principal feature of the building, a Memorial Hall, of more ample proportions, its ceiling carried to and abundantly lighted from the roof. Here [will] be the battle flags, and the wall spaces . . . [will] afford excellent opportunity for historical pictures.

> Still farther on, in the new building, is the grand staircase hall of the House, lighted from the court yard, and directly over the entrance on Mount Vernon Street . . .
>
> To the grand effect of the interior as viewed from the entrance in Doric Hall, we wish to call your particular attention.
>
> One stands in this noble vestibule and has before him the Senate Stairs, itself a hall of ample proportions, treated all in white or soft colored marbles. This opens by a great arch into Memorial Hall, larger than present Doric Hall, and beyond, through a corresponding archway, is the grand staircase of the House. In no building of this country can, we believe, be found a vista of such proportions. Others may be more extended, but the treatment of this, as we have devised it, gives an effect of height and breadth which is very grand, affording a most unique opportunity for architectural skill in design. From the corridors above views are obtained in return of all the grand spaces below.[17]

The fact that the architects were, in the end, not allowed to open up the central archway at the rear of Doric Hall has lessened the impact of these vistas considerably.

Since the original program for the competition has not been located, we do not know whether it specified plans for separate building to the rear or for a connected addition. One of the finalists, Ralph Adams Cram, proposed a structure closely integrated with the existing building which called for the blocking off of Mt. Vernon Street and for a large dome in approximately the location of Memorial Hall. We do not know the layout of Cram's plan, as only elevations have survived, but it is likely that there was to be a monumental hall under the dome. Perhaps Fehmer and Chandler, consulting architects who helped to jury the competition, incorporated some of the features of Cram's design in their suggestions for the monumental interior spaces.

The adoption of these monumental central spaces sealed the fate of the Bryant, Rogers, and Parris additions from this point onward. The earlier additions would have to be sacrificed if the monumental spaces were to be achieved.

The removal of the House of Representatives to the new portion of the building was part of the revised plan. The architects explained:

> . . . We have planned a new Representatives' hall in the centre of the west side. This room is sixty-eight feet wide by eighty-six feet long. A sufficient area to give every representative a separate desk, arranged in pairs with aisles between, relieving members from all annoyance of disturbing each other, and still leaving in front of the seats one thousand square feet of floor space as compared with six hundred and twenty in the present House. The galleries are shown on plan above, and are three in number, -- the members' gallery, the ladies' gallery, and the large or public gallery, with enclosed space for reporters. This room is elliptical in plan, a shape in harmony with the style, affording to the skillful architect a basis for a most beautiful composition. The advantages and conveniences which are here obtained are so important as to deserve dwelling upon . . . . The position of the new House on the west side has been thought particularly suitable, as being the most removed from the noise and dirt of the street.[18]

The rest of the new principal floor was divided as follows:

> On either side of the Representatives' hall, on the same corridor, are rooms for the Speaker and Clerk, ante rooms, reading-room, post-office, smoking-room, coat-room, etc., for the members, giving four thousand six hundred feet of space to such accommodation, as against two thousand seven hundred and fifty-six feet at present. The grand staircase stops at this floor and gives a lobby or "foyer" eighty-seven feet square, from which the wide corridors run in each direction leading to the Governor's apartments, the Senate, the hall for hearing, the Secretary of State, Attorney-General, and the library, all of which are here placed upon one level.[19]

Elsewhere, the general original scheme of peripheral offices and hearing rooms was retained with particular attention given to connecting or juxtaposing those departments which needed to communicate frequently.

Construction Authorized

On June 4, 1889, construction of the addition according to the above plans was authorized.[20] Three construction commissioners were appointed. William Endicott, Jr. was the only one of the three who remained a commissioner through the completion of the project. A loan of $2,500,000 was authorized; and the building which was to be "thoroughly

fireproof in every part and of the most solid construction"[21] was begun.

Participating Architects

Charles Brigham and John Spofford were partners only from 1888 until March, 1892. Thereafter, Brigham was in charge of the project, remaining involved and receiving compensation through the completion of Memorial Hall in January of 1900. The architects' commission was five percent of the cost of construction. Carl Fehmer was employed as consulting architect on the project until he resigned in 1894. William Chapmen, later one of the architects of the lateral wings of the State House, was, according to Withey, a draftsman in Brigham's office during the 1890's.[22] Accounts indicate that Chapman drafted the "as built" plans made after the restoration of the Bulfinch front, and may have been the author of the "as built" plans of the extension as well, while employed by Brigham.[23]

Hybrid Style and Special Features of the Brigham Extension

The Brigham extension increased the size of the State House by fivefold. It provided both monumental and functional spaces on a grand scale, and supplied accommodations for many hundreds of people.

Architects Brigham and Spofford were compelled by their own wishes and those of the consultant architects and legislative committees to create a building which deferred stylistically to the original structure; "to work out the problem in the spirit of Bulfinch's design,"[24] as they said. This was particularly true of the exterior of the building (Figures 21, 24, 25 and 30), where even the choice of yellow brick and white marble as exterior finish was made in deference to the then yellow-painted walls and white trim of the Bulfinch building. The decision to render all the exterior decorative features in marble was especially fortunate, for the marble lent itself to delicate treatment which conveyed well the Adamesque spirit of the original structure.

Given the architectural environment of the 1880's, Brigham and Spofford are to be commended for creating a building as contextual as the extension is. However, it is the compromise between the spirit of Bulfinch and the stylistic demands of the day which gives the Brigham extension its special quality, and makes it in some ways a very creative building. The interplay between the Classical Adamesque and more contemporary treatments related primarily to the Queen Anne and the Italian Renaissance Revival styles is seen principally on the interior of the building. It is manifested both in the juxtaposition of major spaces like the Senate Staircase Hall and Memorial Hall where the Italian Renaissance is the dominant theme with the

adjoining corridors and main staircase hall where Bulfinch Classicism prevails, and in the interweaving of stylistic references within given spaces. Spaces such as the Senate President's office, the House Reading room, and, most notably, the House of Representatives (Figure 97), which present a synthesis of stylistic influences, are the most exciting to us today.

What Brigham drew principally from Bulfinch's time were the design motifs he incorporated into the decorative finishes: the classical pilasters of the corridors, the delicate carving in the Adamesque style of woodwork and furniture, the ornamental plasterwork of ceilings in the Adam style, and even the delicate designs in the cast iron of the stair posts and basement pilasters. What Brigham drew particularly from the 1890's were the lush surface treatments and interior fittings then in vogue. The elaborate treatment, incorporating the Adamesque motifs, constituted the chief glory of the Brigham extension.

It is important to realize that the full effect of the Brigham Extension can not be perceived today. The color schemes, nonpermanent wall finishes, and decorative fittings such as lighting fixtures and stained glass, integral parts of the elaborate treatment, have virtually all been eliminated.

The loss of original lighting fixtures is especially unfortunate. An electrical plant was not part of the original Brigham scheme, as that "means of obtaining artificial light was then in its infancy."[25] Before 1894, however, a dynamo was installed, and before completion 9,500 electric lights were placed in the building. Examination of early photographs will reveal that many distinctive fixtures were used. Perhaps because no earlier precedent existed, these fixtures were among the most creative and original elements of the Brigham interiors.

Many high quality, more permanent finishes such as plaster work, mosaic work, marble work, and especially woodwork remain, however, to convey something of the sense of the original treatment. The woodwork in the major spaces of the Brigham Extension is truly distinguished and was a key feature of the original design (Figures 91, 111, and 112, for example). Fine mahogany was fashioned into wall panelling, carved woodwork, mantelpieces, and major pieces of furniture. The wood craftsmen were primarily from the firms of A.H. Davenport and Irving & Casson; they executed designs by Brigham.

The following discussion will detail what is known about the original materials, form, and finish of the Brigham extension, and the workmen and artisans who constructed and decorated it. A description of the up-to-date mechanical systems which

supplied the building will be included.

Construction Documentation

Our knowledge of the construction of Brigham extension comes primarily from the minutes of the meetings of the Construction Commissioners and their published reports.[26] With the volumes of minutes are the original contracts and specifications. The original bills from contractors have not been located, however, although summary accounts are included in the reports.

The commissioners advertised contracts for the various portions of the work and awarded to the lowest bidder. Detailed plans and specifications were submitted to the governor and council for approval. George L. Eldridge was appointed superintendent of construction in March of 1890 by Brigham and Spofford. In 1892, he was replaced by A.H. Kelsey.

Exterior Work

The first task was to remove the reservoir structure (Figure 16) from the site of the extension. The granite of the reservoir was "to be removed as far as practicable in blocks," and whatever was suitable for use in the future building was saved.[27] No part of the existing foundation walls of the reservoir was reused in the extension, however.[28]

Augustus Lothrop, who had worked on the underpinning of the walls of the Bulfinch State House in 1855, did the preliminary excavations. Moulton, O'Mahoney and Trumbell did the final excavations. Norcross Brothers of Worcester, builders of many of H.H. Richardson's buildings, were awarded the masonry contract of $622,000.

The granite for the basement story was supplied by Hallowell Granite Company of Hallowell, Maine, suppliers of the granite for the New York State Capitol. Specifications included in the construction commissioners' records indicate the methods and expectations of the architects: "all carved and ornamental work to be executed in strict accordance with details, plaster models, etc., which will be furnished by the architects, the whole of which is to be cut with spirit and in an artistic manner."[29] The work received rave reviews in a contemporary newspaper:

> Here is a study in the material itself brought out to perfection by the skilled craftsman. The stone is very fine in grain, a rich grayish white in color, and its nature is tenacious, remarkable in its granular affinity, and stands the test of time even in the nicest, sharpest and most exposed angles. .

> . . it submits to the most delicate treatment in detail as witness the splendid modelled egg and dart design on the grand porch column capitols that seem almost like casts instead of individually hand chiselled granite.[30]

The finish of the first floor of the exterior of smoothed marble ashlar and the marble balustrade and its cap at the eaves were supplied by the Vermont Marble Company of Proctor, Vermont from their Rutland quarries (Figure 25).[31] The buff bricks for the exterior walls were supplied by Fiske, Homes and Company of Boston; 6,765,000 bricks had been laid in the building by 1891. The mason's contract specified that "the exposed face work of all kinds is to be handsomely pointed with colored cement putty tooled to make beaded joints."[32]

William Gray and Sons of Philadelphia supplied the cut marble for trim, from quarries in Lee, Massachusetts, for $257,575 (Figure 21).[33] The marble was carved in place.

The fireproof construction of the building required vaulting constructed of brick with iron or steel supports supplied by Megquire and Jones Ironworkers of Portland, Maine for $152,798. Columns throughout the major floors of the building are steel Z-bars cased in terra cotta and finished in Keene cement. In the basement floors, they are cast iron. The iron roof of the Representatives' Hall was supplied by Norcross Brothers.[34] Roof coverings were of copper on the shallow slopes, and slate on the steep slopes; gutters were copper.

Completion Dates

Owing to a decision of the Governor and Council in 1891 not to demolish the Bryant addition until new quarters for the departments there were ready, the part of the extension north of Mt. Vernon Street was completely finished and readied for occupancy (in January 1895) before the more southerly part was begun (Figure 18). The intermediate portion was completed by early in 1897, except for Memorial Hall which was not finished until January of 1900. Final construction of Memorial Hall was delayed because temporary quarters for the Senate were provided in the upper part of the Hall for the session of 1897 (Figure 122). The Senate had to vacate its original quarters while the Bulfinch building was being restored, and the former House of Representatives being transformed to become the permanent home of the Senate.

Brigham's Role in Interior Design

Documents indicate that Charles Brigham was involved in every detail of designing the interiors and choosing and approving materials. During the course of the ten years that he worked

on the building, his firm produced nearly 3,000 ink-on-linen drawings which included exterior elevations and details as well as interior design and finish. Interior plans include room elevations complete with secretaries and bookcases for specified locations drawn in, designs for doors, windows, elevator grillwork, special mosaic work in color, leaded glass window design, and even of metal covers for ventilating ducts. Although Brigham must have consulted with the craftsmen and the managers of companies about the design of some of the finishes, it is clear that he was in charge. For example, plaster work was done after models approved by the architect; painting colors were "varied in the different rooms under the direction and to the satisfaction of the architect;[35] and marble colors for the mosaic work were approved by Brigham.

Carved woodwork in the major rooms of the House and Senate and in the House of Representatives itself appears to be one case in which the company contributed to the design. The carving in these rooms in design and execution is characteristic of the work of the A.H. Davenport Company. The carved work and its design in the Senate president's suite has been attributed, in fact, to the Davenport carver, Kirchmeyer.[36]

Interior Construction

The contract for interior plastering and stucco work was awarded to Thomas Parker and Company of Boston for $131,442. A newspaper noted:

> Everywhere in the structure one may study the highly refined objects which this concern has bestowed its best efforts upon; the grand, specially-designed, fluted columns, with caps and ornaments, all through the building, composed of cement; the dentils, egg and dart patterns, the heavy beamed ceiling, cornices, friezes, triglyphs; indeed all of the relief work is the very perfection of cast and design.[37]

Among the most notable examples of plasterwork in the extension are the ceilings of the House Reading Room, the current Senate President's Office, and the Senate Staircase Hall.

Woodbury and Leighton, who had recently completed similar work on the new Boston Public Library, received the carpentry contract for $101,000. Specifications defined the materials to be used and referred to the numbered plans for all woodwork designs. For instance, doors in the major rooms were to be veneered with three-eighths of an inch of "the very best quality Mexican mahogany selected especially for handsome grain.[38]

Doors to lavatories in these rooms were to be of cherry veneer. Elsewhere in the building doors were to be of quartered oak.

Woodbury and Leighton were responsible for all carpentry and wood finish in the extension except, it seems, most of the panelling, carving, and mantelpieces in the major rooms. Separate bids for this work are recorded in the construction commissioners' minutes. Most of the work was, as previously stated, awarded to the A.H. Davenport Company, which was almost consistently the lowest bidder. Second most frequent recipient of contracts for interior finish was the Irving and Casson Company. (A.H. Davenport and Irving & Casson were the foremost Boston furniture makers of the day. In 1916, the companies merged.) Keeler and Company and the Henry A. Turner Company were responsible for smaller amounts of interior finish. The fabricator of the finishes (where known) are noted below in the room by room descriptions.

Painting and glazing of the interiors was the work of Lewis F. Perry and Whitney of Boston; the architect, as stated, chose all the colors.[39] A few descriptions of the painted work in principal rooms are found in the major newspaper account discussing the building at its completion. In the corridors, (Figures 83 and 84) the article states, "the ceilings are tinted a delicate sunny green, while the side walls are a deeper and cooler shade like the underside of a wave about to break.[40] The walls of the corridors were painted with four coats of oil paint and the ceilings were tinted in water colors. Perry and Whitney's work included tinting cornices on the principal floors two or more colors, as shown on detail drawings, "bronzing and lacquering" the radiators, and furnishing leaded stained-glass windows for the library.[41]

Interior ironwork was prepared by the Brown and Ketchum Iron Works Company of Indianapolis, Indiana. Their work included the furring for all the coved cornices and flat ceilings, the supports for the inclined floor of the House of Representatives, iron columns and pilasters (such as in the basement floors), and the soffits and stringers of the staircases (Figure 82).[42]

Interior marble work was supplied and cut by Bowker, Torrey and Company of Boston.[43] Their work included the door frames, dado, pilasters, and capitals of the corridors of the principal floors, the carved marble frontispieces of several major doorways on the third floor (Figure 80), marble and slate paving of corridors, and fireplace facings. The kinds of marble used in specific applications are detailed in the architect's specifications.[44] In general, it appears that the white marble of the interior of the extension was Italian in origin. Under a separate contract of $119,296, Bowker,

Torrey and Company provided and cut the marble finish of Memorial Hall.[45] (Figures 73 and 74) The types of marble used in the principal spaces (where known) are indicated below.

The mosaic floors of the extension are the work of the Boston Mosaic Company of Boston. Important spaces featured Venetian mosaic work -- special patterns created from pieces of different colored marbles (Figure 76). These special designs were shown by the architect on inch-scale colored drawings. The designs were to be made "of selected foreign marbles . . . as near as possible the colors shown on the drawings."[46] Elsewhere mosaic work was of the Roman type -- mosaic pieces, colored as directed by the architect, combined in linear patterns.

The ornamental lighting fixtures of the major spaces were primarily the work of McKenney and Waterbury of Boston (Figure 101). Called "among the genuine art products [of] . . . the new State House," the electric fixtures were the subject of a contemporary newspaper description (quoted at length in the House of Representatives section below). The article concluded:

> Among the many public as well as private structures which Messrs. McKenney and Waterbury have furnished with electric fixtures, it is questionable indeed if they have ever reached the excellence of their work in the new State House. Albeit, they have for a long time held the standard for uniqueness and inventiveness in design, as well as completeness of workmanship and practical finish.[47]

With 9,500 electric lights in use in the State House, many fixtures were needed. Others were supplied by Robert D. Ireland and Company, Archer and Pancoast Company, and the General Fixture Company. The latter company supplied the fixtures for the corridors (Figure 83).[48] The only original lighting fixtures to survive are those installed on the exterior staircase on the east side, supplied by Archer and Pancoast Company for $500.[49]

Furniture for the extension, particularly the large pieces made for specific spaces after designs by Brigham, were an integral part of the interior finish of the building. They were made by major Boston furniture makers of the day, A.H. Davenport, Irving and Casson, Henry A. Turner, Keeler and Company, and others, with the first two receiving the majority of the contracts. In several cases, in fact, furniture by A.H. Davenport and Company was chosen by the construction commissioners on the basis of superior designs even when the company's bid was not the lowest. The major pieces of

furniture were closely related to the interior woodwork in design, and in the use of the finest materials. The wood was primarily white and red mahogany. Some of the carved work on both the woodwork and furniture was executed by machines which operated a series of knives controlled by a template.

A separate act authorized the spending of $325,000 to furnish the extension.[50] A substantial amount of steel furniture, files, bookcases, safes, and the like was provided by the Fenton Metalic Manufacturing Company of Jamestown, New York, for the purpose of protecting records from fire. Examples of original safes are found in suites 33 and 34. Included among the metal fittings were six steel mantelpieces "finished to suit adjoining work with brass or bronze mouldings,"[51] and metal galleries in the Treasurer's and Auditor's departments to hold files.

Among creators of the many stained and leaded glass windows which ornamented the building were the Archer and Pancoast Company and Frank Hill Smith. Decorative glass was incorporated into the fan and sidelights of the entrances to many rooms, and was used in interior windows and in the upper portion of some of the exterior windows. Some of the stained glass has been removed, most notably the stained glass skylight of the Representatives Chamber. A few stained glass windows, probably from the Library, are stored in the basement of the State House.

Carpets for the building were supplied by John H. Pray, Sons and Company, and venetian blinds and window shades by Holland and Daniels were used.

Every suite was supplied with plumbing by Henry Hussey and Company of Boston. Many washbowls were of marble. Other fittings were of equally high quality. An example of a lavatory in its original condition complete with marble counter and varnished door with panels with metal grates is to be found in suite 33. The main toilet room on the third floor for the use of the representatives was "the largest concentrated quantity of plumbing in the state."[52] Some of the lavatories were "wainscotted with seven foot slabs of Carrara marble."[53]

Main Staircase Hall

The main staircase hall was designed by architect Brigham to include an expansive lobby outside the House of Representatives (Figures 77 and 78). The broad marble staircase with wrought-iron railings proceeded from the first floor to this ceremonial space. Above, a deeply-coved ceiling terminated in a rectangular ceiling light with stained glass rendered in a plaid pattern (Figure 79). The rinceau-patterned iron railings and balustrade of the fourth floor gallery above were the work

of John Williams, and cost $8,400.[54] The original color of these railings is uncertain. Specifications indicate only that they were to receive three coats of paint. (See Physical Investigation section). Lighting standards (shown in Figure 77) with four globes capped the stair posts within a few years of the original construction.

The decoration of the coved ceiling and the ceiling light was the work of artist Frank Hill Smith of Boston:

> Here are a series of . . . escutcheons placed at regular intervals, all varied and interesting. [In one,] a central cartouche containing the name of Hancock is surrounded with upright fasces and bossed shields on right and left, cornucopias and palm branches at the base. These are surmounted by a central eagle, with drooping national flags all over. The general scheme of color is of a rich yellowish gray, while the various emblems are in appropriate tints.[55]

The stained-glass palladian window on the landing contains "reproductions of the various official seals of Massachusetts."[56] (Figure 81)

House of Representatives

The artistic piece de resistance of the new State House, as stated by a contemporary newspaper, was the House of Representatives.[57] Although the scheme of design was perceived as "pure Italian Renaissance" when the chamber was first completed,[58] the room is now viewed as Brigham's creative blend of Renaissance and Queen Anne styles with something of the quality of a theatre (Figures 97 to 100).

The entire lower half of the elliptical chamber was finished in white mahogany wood panelling and carving by the A.H. Davenport Company. Davenport's letter to the construction commissioners makes clear that the decorative scheme was Brigham's:

> The figures I gave you for the woodwork of the House of Representatives as shown on drawings from Mr. Brigham and explained to me by him were $11,467.00. . . I find today that the Speaker's platform is to have a panel front of white mahogany corresponding with other work. I did not include it in my other figures. I will now propose to do the work as carefully as specified by Mr. Brigham. . . . [for] $11,217.00. In this amount is included the carving which amounts to $4,650.[59]

The desks of the Representatives were also made of white mahogany by the A.H. Davenport Company. The electro-bronzed metal bases of these desks were supplied by W.H. Jackson. Furniture of the galleries and tables for reporters were made, however, by the Irving and Casson Company, while desks flanking the speaker's desk were the work of the Henry A. Turner Company. Apparently, a race to complete the chamber for the January, 1895 session resulted in distributing the furniture contracts among several companies and in the necessity of night work.

Galleries surrounded the upper portion of the room on three sides (Figure 102). These accommodated reporters on the south, ladies on the north, and the public on the east. The west side of the chamber behind the speaker's platform was to be decorated with historical paintings. In the beginning, however, it was decoratively painted in a diaper pattern. Paired Corinthian pilasters on the walls, and columns in front of the east gallery, defined the upper part of the chamber and lent visual support to the great, coved ceiling, with its ornamental plasterwork and painting.

The decoration of the ceiling and the elaborate, oval, central stained-glass skylight were the work of artist Frank Hill Smith:

> The upper coving is grandly treated. . . . Here occur the following scrolls: symbolic panels representing Law, with scales of Justice; Commerce, with ship in centre; winged Mercury, trydent, etc.; War with group of antique armor; Science and other emblematic objects. Above these is another set of longer panels, in which are set symbolic ornamentations of Manufacture, Agriculture and the Arts. Below are significant symbols introducing in superb coloring and drawing swags of fruit, cornucopia, ribbons and the like. . . . Wherever ornaments appear on golden or warm gray or light blue backgrounds the results . . . are carefully studied and untampered by any false notes. . . .
>
> The oval ceiling light . . . , is treated in rich and delicate tones of leaded glass, perfectly in harmony with the architectural lines and the color, as well as the ornamental affects of the stately room. The centre of the oval contains the seal of state, sustained on either side by symbols of Thrift and Industry, forming a grand and intensely interesting assemblage of color, with gray tones predominating. Surrounding this area are a series of medallions, bearing the names of the fourteen counties of the state.[60]

The oval ceiling light was removed in the late 1960's; portions of it survive in the possession of a private party.

Also incorporated into the ceiling were "hundreds of dispersed openings" with a total area of 20 square feet which served as discharge sites for the ventilating system.[61]

The electric lighting of the room must have been truly innovative for its time:

> The scheme of lighting has been carefully studied out and . . . [an] enormous atmospheric area is . . . illuminated. Here upward of eight hundred and sixteen candle power lamps are . . . used in a practical and artistic manner, and the distribution of this great quantity of light by means of fixtures as well as direct from the lamp is gratifying to the connoisseur and the public alike.
>
> The direct light that comes from one hundred and ninety lamps which jet from the rosettes in the oval that encircles the lower coveing suggests, as its rays permeate the house, a wreath of stars fixed half way in the zenith. The luminaries are supplemented by an even continuous line of subdued globe lit candelabra stationed between the gallery columns and the panel pilasters, those which separate the moulding of the picture panels.
>
> Besides these there are five ceiling pieces in the gallery, and over the oval-leaded glass in the center of the ceiling a scheme of lighting has been devised that shows off the warm sunny colors of the glass with great effect, revealing the tints and designs as in a picture. Art and utility are here combined with consumate intelligence. . . . One might truly say that the electric fixtures set off the mural decorations.[62]

The major ornamental lighting fixtures of the room, on brackets between the pilasters, on standards between the columns, and at either side of the speaker's desk, were the work of McKenney and Waterbury of Boston (Figure 101). The cost was $8,357. The following lengthy and flowery description of the fixtures is worth quoting, since the fixtures themselves have been removed:

> The gallery standards or column candelabra [are] set upon a malachite base. Four claws rest upon a heavy disk; rising above this is a shaft which with its capital, is five feet in height and is ornamented

> with laurel and fluting, egg and dart and other symbolic examples of the Renaissance order. Above this there are eight arms and a central standard, surmounted with blown alabaster glass globes, melon shaped. These globes contain in all thirty six lights and the total height is nine feet from the gallery rail. Witness the exquisite finish, the chasing and incised work on the capital eagles, the movement and character, as well as modelling of these ornaments; also other features, the leaves and branches which occur in proper intervals -- verily they are fit for the drawing room, so carefully are they chiselled, so massive, yet beautiful do they compose in this assemblage of artistic, solid bronze metal with gold plate and laquer. There are eight of these candelabra, and they are supplemented by the brackets upon the walls . . . , and the two which rear their graceful proportions on each side of the speaker's desk. The brackets consist of five arms and a body upon which are set alabaster globes that form a decorative group of glowing luster. The folliated members of the borders, the simple, yet poetic forms encompassed in these brackets are worthy of much praise and art comment. They are the finest work of their nature ever shown in the country.[63]

Senate President's Suite

In the Senate President's Suite, the mahogany wall finishes, the built-in cabinetry, and mantelpieces were the work of the A.H. Davenport Company. The woodwork is perhaps the finest in all of the extension. The carved work has been attributed to the carver, Kirchmeyer, of that company. Brigham's elevations of nearly every wall of the four major rooms in the suite survive among the collection of original drawings of the extension (Figures 88, 90, 92, and 94).

Senate President's Office

The former Senate Reading Room, now the Senate President's office, was described in 1896 as "a magnificent apartment finished in white and gold"[64] (Figures 85 and 86). The decorative work in oil colors of the ceiling and frieze and the covering of the walls was the work of Frank Hill Smith and cost $2,750.00.[65] The ornamental plaster of the ceiling appears to have been picked out in gold; the cove was decoratively painted in a diaper pattern. A portion of the wall covering is drawn in on Brigham's plan (Figure 88). Its material is not known, but the drawing and an early photograph reveal it to have been richly patterned. The central electric chandelier was supplemented by twenty ceiling bulbs. Davenport's price for the white mahogany finishes in this room was $2,430. These

finishes are in the best state of preservation of any woodwork in the extension (Figures 89 and 90). The upper panels of the wainscotting, which contain portraits of former Senate Presidents, were added in 1898.[66] The facing of the fireplace is onyx marble, and the current brass fittings of the fireplace are original.

The Coolidge Room

At the north end of the Senate President's suite was the original office of the Senate President. Now known as the Coolidge Room because it was occupied by Calvin Coolidge when he was President of the Senate, this room has, thanks to its association with Coolidge, preserved more of its original finish than any other room in the extension (Figures 95 and 96). It is the only room to retain the original covering and painted finish on the upper walls and ceiling. The wallcovering is apparently a cloth material onto which were glued swag and wreath ornaments. Both upper walls and ceiling are painted in imitation of deeply burnished bronze.

The decoration of the room including the wall covering, the embossed leather panels above the dado (now removed), the interior stained glass window, and the register was the work of Frank Hill Smith.[67] The fireplace facing is black and gold Italian marble.

Office of the Speaker of the House, Room 354

The Speaker's office was finished in mahogany by A.H. Davenport and Company (Figure 104). Frank Hill Smith supplied embossed leather for the upper walls, stained glass top lights, and decorative painting on the ceiling. Examination of an early photograph reveals that the delicate Adamesque design of the plasterwork was probably gilded and the background painted in a dark color (Figure 103). The total cost of Smith's work was $1,495.00.[68] The fireplace facing was rouge jasper. Original plans of several elevations of this room and room 355 survive.

Rooms in the Speaker of the House's Suite, Rooms 355, 357, and 358

Wood finishes in rooms 355, 357, and 358 were supplied by A.H. Davenport and Company. That in room 357, originally the room of the Clerk of the House, cost $3,000.[69] Room 355, originally the room of the House Committee on Rules, had wall coverings with applied swag designs similar to that found in the Coolidge Room (Figure 128). The fireplace facing in room 355 was of rouge jasper.

House Reception Room, Room 350

Finished in white mahogany, like the adjoining House Chamber, executed by the Henry A. Turner Company, this room is one of the few to retain stained glass top panels in the exterior windows.[70] (Figure 105) The current furnishings of this room are like those in the early view of the House Reading Room. The Boston Sunday Herald of December 30, 1894 noted that this room and the room immediately north were treated in a manner similar to the House Reading Room, but "with a ceiling cove richly ornamented in the style of the French Renaissance"[71] (Figures 105 and 106). Frank Hill Smith was responsible for the decorative painting of the ceiling of the House Reception Room and for the "leather like" covering on the upper walls.[72]

House Reading Room, Room 345

This room was one of the most elaborate of Brigham's designs. The deeply coffered ceiling is the distinctive feature of the room (Figure 107). Although the carved, paired pilasters (Figure 110) refer to the Adamesque style, elsewhere the room is more closely related to other late nineteenth century revival styles including the Georgian Revival. This may have been one of the first interiors Brigham designed for the building, since construction proceeded from north to south. In fact, the Secretary of State's room in a nearly comparable position on the east side of the building is closest to this room in style (Figure 117). It is as though Brigham had not yet defined the way in which he wanted the interiors of the new building to reflect the style of the Bulfinch structure. South of the room, the ceilings in particular are much more Adamesque in feeling, incorporating delicate plasterwork in oval or circular designs.

A contemporary newspaper said of the House Reading Room:

> In the large reading room the ceiling is a deep sea green, while the pilasters and entablature represent old ivory picked out in gold. The cove around the ceiling is treated in a shade of olive, the whole blending harmoniously with the Spanish leather of the side walls and the rich mahogany finish.[73]

The leather wall covering was removed in the 1950's (Figure 108). A portion of it survives, however, having been salvaged by Joshua Smith to cover a bar in his recreation room.[74] The decorative painting was the work of Perry and Whitney. Fireplace facings in this room and room 350 are of Siena marble (Figure 109).

Secretary of State's Office, Room 331

The A.H. Davenport Company's proposal "to furnish book cases, wardrobes, special cases, dado, etc. for the office of the Secretary as per specifications for $12,560" was accepted.[75] The room's decoration, in part the work of Perry and Whitney, was described thus:

> In the Secretary of State's public office the ceiling, surrounded by heavy cornices and massive beams, is treated in a deep ecru. The cornice and beams, as well as the entablature, are in old ivory and gold. Just above the entablature is a deep cove, handsomely ornamented with medallions, shields and diaper work in effective combinations. The side walls are decorated with fleur-de-lis, wreaths and ribbons. The tone of coloring is red, rich yet soft and harmonizing with the mahogany finish. The whole is in the style of the First Empire.[76]

Perhaps the "shades and eighteen holders" supplied for the Secretary's office by R.D. Ireland and Company are those shown on the desks in the early photograph (Figure 117).[77]

Secretary of State's Reception Room

Adjoining the Secretary of State's office was:

> . . . the reception room. The ceiling consists of one large panel colored a deep greenish blue, and decorated with a laurel leaf. Between the ceiling and side wall is a deep cove with a Renaissance ornament in Ivory color upon a rich golden yellow ground. The cornices are in old ivory and the side walls a very subdued orange.[78]

The former Secretary of State's Suite has now been so altered that it is difficult to be certain to which current room this description refers.

State Library

The State Library was conceived as a dramatic space with high, coved ceiling and galleries on three sides (Figures 113 and 114). A lengthy description in the Boston Sunday Post of December 16, 1894 portrayed the library as "more complete and elegant in its appointments and devices than . . . any library on this country."[79] The Boston Sunday Globe called it "the most magnificent, with the possible exception of the Representatives' Hall, of all the rooms in the extension."[80]

> You enter a marble doorway exquisitely carved. The two sliding bronze doors, with plain, shining panels . . . make a striking contrast to the glistening white marble. There is an inner pair of swinging mahogany doors with ground glass panels. Within the large hall like room with lofty ceiling, you are struck by the harmony of colorings and the beauty of architecture. Columns and massive arches are at either end; a row of fluted Corinthian columns, extend across one side of the room, and opposite are seven great stained glass windows that dissolve a reddish gray light. High above are top lights of amber glass that mellow the sun's rays which fall upon the sky lights. In this soft light which fills the room radiantly, you are scarcely conscious of the rich deep coloring which meets the eye at every turn. The lower walls are pale green, shading into delicate yellow higher up, while the ceiling is sky blue with gold trimmings. In the evening when the row of border electric lights just below the ceiling are turned on, the effect is wonderfully beautiful.
>
> All about the walls are panel trimmings of light yellow stucco. The bases of the columns are a bright brown, which would be glaring but for the admirable blending with the brown linoleum of the floor.
>
> No less attractive are the book cases themselves, one row of which extend across the room within the colonnade under the gallery. On the end of each case are bronze trimmings and a design of an open book made from a hand-cut mould. The burnished bronze trimmings on every corner and edge show beautifully against the metal cases enamelled in olive. The shelves are of steel, and can be adjusted to any size of books. This is a patented device of great value in economizing room
>
> . . . . In the main reading room . . . [will be] tables with plate glass tops and shining red mahogany chairs upholstered in brown leather, while the railings, the desks and every bit of wood finishing of the room will be of this beautiful deep red wood.[81]

The decorative painting, the work of Lewis F. Perry, must have been very striking. An early photograph (Figure 113) indicates that not only were there gold trimmings on the ceiling, but the raised fleur-de-lis designs were picked out in a darker color. Perry was also the maker of the stained glass windows to Brigham's designs. Perry's work in the library cost $7,000 in all.[82] The fine, semicircular stained glass top lights

survive, (Figure 115), but the windows below lost their stained glass many years ago. The current windows, replacing the earlier casements, were installed in the 1970's.

The bronze doors which slide into recesses in the wall when the library is open were made by the Murdock Parlor Grate Company for $750 (Figure 116).[83] There are many references to the purchase of furniture for the library, mostly from the A.H. Davenport Company, including curious revolving bookcases.

The Librarian's Room

> The Librarian's private room leads off from the western end of the reading room. With its plate glass windows overlooking the city on the north, its cosey fireplace, its mahogany bookcases built around the walls, its elegant center table of octagonal shape, surrounded by high-backed chairs and its soft brown moquette carpet, it is a delightful recess.[84]

The woodwork in the Librarian's room was made by Keeler and Company. Comparison to drawings by Brigham indicates that much of the current finish is original, although the fireplace has been removed and a bookcase installed in its place.

Treasurer's Office

The Treasurer's office (Figures 118 and 119) was furnished with elaborate grille-work treated in bronze color and furnished by the Murdock Parlor Grate Company. The firm was also responsible for the massive bronze doors at the entrance to the room. These were divided into sixteen panels, each finished with an egg and dart molding. For fire safety reasons, much of the furniture in this office was steel. The massive mantelpiece was of steel, enameled dark green.[85]

North Staircase Hall

While all staircases in the Brigham extension share common characteristics of design and materials, documentary and physical evidence suggest that the soffits and other parts of the north staircase adjacent to the Library (Figure 82) received a finish of silver-colored leaf which was unique among staircase treatments in the extension. A newspaper description of 1894 states:

> In passing down from the floor to the other a glance backward and upward will reveal something new in the way of softening the ugliness of iron stair frames. Whoever invented the conceit must have suddenly thought of the old maxim, "Every cloud has a silver lining," and proceeded forthwith to peel off the

> lining, for every stair frame is covered with leaf silver, giving a far more pleasing effect than the usual white or colored paint.[86]

Physical examination corroborates the presence of silver-colored leaf on the soffits and newel posts. See Testing and Analysis section for more observations.

Senate Staircase Hall

Known also as Nurses' Hall, owing to the monument to Civil War nurses there, the Senate Staircase Hall was finished in Pavonazzo marble by Bowker and Torrey Company (Figures 71 and 72). Two staircases, made of marble on an iron frame, ascend from the Doric Hall story to the principal floor. On three sides are galleries fronted by Ionic columns of Siena marble. According to the specifications, these were to be carefully matched in color and graining.[87] (See Burrill: 1921 for description of historical paintings in both halls.)

Memorial Hall

Memorial Hall, (Figures 73 and 74) or the Hall of Flags, was conceived as the repository of the sacred battle flags, previously housed in niches in Doric Hall.

> Sixteen pillars of Siena marble support the circular gallery. The dome is surrounded by a heavy bronze [colored] cornice environed by eagles of the Republic, and above them, in cathedral glass, is the coat of arms of the Commonwealth, encircled within laurel wreaths, by those of the other twelve original states.[88] (Figure 75)

The ceiling is apparently plaster work executed by Thomas Parker, and then decorated and gilded by the A.H. Davenport Company to give the appearance of bronze.[89]

Obviously, the Siena marble of Memorial Hall is from a different quarry than that of the columns in the Senate Staircase Hall.

Memorial Hall was reputedly the most costly hall of its kind in the country when built. The total cost of Memorial Hall was $309,118.93.[90] Bowker and Torrey's portion for the marble work was $119,296.[91] The floors of Memorial Hall and the Senate Staircase Hall were inlaid with six kinds of marble: white Italian, Pavonazzo, grand antique, Languedoc, Siena, and Verte Campagne.[92] The original program for Memorial Hall called for a mosaic ceiling. The work, postponed until after installation of the historical paintings so as to harmonize with them, was never completed.[93]

Other Rooms in the Brigham Extension

For the original configuration and finish of other rooms in the extension, the reader is referred to Figures 118 and 121 to 133; to illustrations in Our State House and Our State Capital, Illustrated of 1900, in the State Library Special Collections; and to extant original drawings by Brigham's firm. These indicate that all rooms were individually treated. Many had ornamental mantelpieces, elaborate wall coverings, and rich draperies and carpeting. Fireplace facings of tile, face brick, or marble further embellished the rooms, as did individual paint schemes and elaborate lighting fixtures, apparently unique to each room. On the fourth floor, most rooms had distinctive ceiling configurations and skylights with individually designed fittings. Judging by the photographs, the interiors of even the minor rooms in the extension were up-to-date in finish and furnishings, and rich and varied in design.

Mechanical Systems

The electrical plant was especially notable. Designed by Stone and Webster and executed by the General Electric Company, this system was an afterthought. Electric lighting was not contemplated in the original scheme, but as soon as it became clear that such lighting was the wave of the future, two dynamos were constructed. The plant was the largest isolated lighting plant in New England.[94]

The heating and ventilating systems were designed by Professor S.H. Woodbridge of M.I.T. Steam heat was controlled by automatic thermostats.

> A unique feature of the system [was] the warming of the lowest floor by the hot water of the returning condensation from the radiators on the floors above, and the automatic device for bypassing the hot water from the radiators when not required for warmth of the basement rooms, and the method of steam filling the radiators when the severity of weather or other occasions may demand more heat than can be obtained from the returning water.[95]

The ventilating still relied upon the rapid exchange of air so that rooms would not be contaminated with vitiated air:

> The fan rooms, one on the east and the other on the west side of the building, in each of which is a large open fan of special type running at low speed, and which together draw into and force through the building a maximum of 9,000,000 cubic feet of fresh air an hour and distribute it through spacious shafts

> and channels to all its rooms, furnishing to each occupant of all but the occasionally crowded rooms more than 3,000 cubic feet of air an hour, and changing the air of the more moderately ventilated rooms as often as once each half hour.[96]

Although steam heat was supplied to registers in all rooms, many of the rooms had fireplaces as well. It is unclear whether these were installed principally for aesthetic reasons, or for auxiliary heat, or, as additional outflow sites for foul air, as the following comment suggests:

> Open fireplaces act as reliable missionaries in carrying foul air to the outer world, a truth apparently very much in evidence with the architect, for in nearly every room they gape.[97]

Changes to the Exterior of the Brigham Extension

Although the interior has undergone much transformation and loss of original finish, the exterior has received only two important changes. The original one-story marble portico at the top of the stairs of the major entrance on the east side was removed in 1963. The tetra style portico had Ionic columns, a plain entablature, and a balustrade topped by urns. Half urns over the east entrance now mark the location of the earlier portico.

Originally, a double marble staircase gave entrance to the basement from Derne Street. Two flights of steps parallel to the building ascended to a central doorway. Below the doorway between the steps was an opening which communicated with the courtyard. Presumably, the marble steps were removed and the current entrances to the sub-basement were installed when Derne Street was widened. A slightly projecting layer of rusticated granite was then placed around the vehicular entrance from Derne Street, probably to cover remnants of the staircase installation.

The third loss is the copper cresting atop the House of Representatives, which presumably took place when the skylight was removed in the early 1970's.

3.5 Cummings/Everett Restoration (1897)

Restoration of the Bulfinch Front

Replication of Bulfinch State House Recommended

Even though preservation of the Bulfinch State House was a proviso of the act which authorized construction of the Brigham extension, as early as December 1892, the State House Construction Commissioners began, with the concurrence of architect Charles Brigham, to suggest replicating the Bulfinch building in stone. Among the reasons given were that the building was old; that "its outer walls and wooden finish will not be in keeping with what, while called an extension, will really be five-sixths of the whole building";[1] and that the wooden dome should be iron. The next annual report of the Commissioners concluded with an even stronger statement:

> We believe that it is neither prudent nor fitting to leave the State House in the imperfect, fire exposed and incongruous condition which it will present if the front is not rebuilt to conform in stability, security and beauty with the main body of the extension.[2]

Thus, the Bulfinch State House received a third threat to its survival. Acting upon the recommendations of the Construction Commissioners, the Committee on the State House began in 1893 to argue for the rebuilding of the State House.

Opposition to Destruction of Bulfinch State House

Reaction to the recommendation was immediate, beginning with opposition by a minority of the Committee on the State House.[3] By early 1894, "remonstrances from all parts of the State against the destruction of the State House [had been received], while not a single petition . . . appeared favoring destruction."[4] The general feeling was that the building of the Brigham Extension would never have been authorized had the rebuilding of the Bulfinch State House been part of the original plan. There was even an unsuccessful move to go back to the initial scheme in which the Bryant addition was to be preserved and the new building connected to it by bridges, thus avoiding too close a connection between the new and old structures. Few outside of the Construction Commissioners, their architect Charles Brigham, a majority of State House Commissioners, and some members of the legislature, it seems, were in favor of demolishing the Bulfinch State House. Still, the fate of the original State House hung in balance for three and a half years, while opposition to the building's destruction grew to a fever pitch. Petitions were submitted;[5] articles were written;[6] pamphlets with titles

such as "Save the State House"[7] were put out; and a ladies' committee was formed:

> Preserved in the archives of the Commonwealth is probably one of the choicest collections of petitions ever presented to the General Court. They came from the State of Maine, signed by the Governor of that daughter of Massachusetts; from Chicago, bearing the names of her most distinguished citizens . . . ; from the State Board of Trade; from the architects of America; from labor organizations; from patriotic societies; -- till their names became legion. Faneuil Hall and the Old South resounded with the demand for preservation. As one gentleman remarked there had been nothing like it since the days of the Civil War. The press of the Commonwealth, almost to a paper, supported the proposition . . . . The New York 'Sun' wisely commented, 'A single scale of the tutelar codfish is worth a hundred thousand new State Houses.' But the most valuable aid of all was rendered by a committee of ladies, whose chairman was Mrs. Sarah Lowell; the secretary, Lucy Lowell. Right diligently did they labor and all who applaud the results should unite in praise of these loyal, tireless women.[8]

Committee Appointed to Examine the Condition of the Bulfinch Building and Make Recommendations

The deteriorated condition of the Bulfinch building was a legitimate cause for concern by the 1890's. A combination of normal aging and a series of misguided alterations, particularly during the Washburn renovations, left the structure in a weakened state. Clearly, either restoration or rebuilding was necessary.

On March 14, 1895, the legislature authorized the appointment of a committee comprised of three disinterested persons, experienced members of the architectural, engineering, and building professions respectively, to report on the condition of the Bulfinch State House, and to make recommendations for its preservation.[9] The appointees, who were to be known as the Commission for the Preservation of the Bulfinch State House, were architect Charles A. Cummings, David H. Andrews, and E. Noyes Whitcomb. In April, the commissioners reported on their examination of the building.

The first part of the report described the masonry construction. The outside walls rested "on a foundation of stone and brick four feet thick,[10] which the commissioners assumed was the original foundation of the building. Beneath this was the underpinning installed when the grade was lowered

and the rusticated basement facing added in 1855. "The underpinning of the outer half of the wall [was] . . . carried two feet deeper than the inner half."[11] The four interior cross walls were also found to have been underpinned in 1855. The exterior brick walls, they stated,

> are twenty-four inches thick from foundation to roof, while of the four cross walls, the two which enclose the central square of the Doric Hall and the Representatives' Chamber are also twenty-four inches thick throughout their whole height, the other two being twenty-four inches thick in the basement and from twenty to sixteen inches above.[12]

The commissioners found the masonry to be in good condition, "the brickwork in particular being of excellent character as regards both material and workmanship."[13] The exterior wooden trim was also in generally good condition. In the interior of the building, however, they stated:

> the results of the examination are less gratifying. There appears to be no considerable deterioration in the materials of the original construction, except in the roof . . . , but the interior has been subjected at various times to repeated and radical changes, in the carrying out of which small consideration has been given to anything but the exigencies of the moment; and in which the result desired has been gained apparently with absolute disregard of the original construction and of the consequences of the combination of new methods with old. Some examples will illustrate this statement: The columns of the Doric Hall, which support, in a great measure, the floor of the Representatives' Chamber, rested originally on brick piers below the floor. These were removed when the basement story was constructed, and most of the columns have now no direct support except the floor on which they stand.
>
> Again, at some period, it being desired to give additional height to the mezzanine story of the west wing, the deep wooden floor joist of the second story and those of the intermediate floors were removed, and six-inch iron beams were substituted, placed five and six feet apart, with a span of about twenty-four feet, one end resting on the brick outer wall -- or, where a window intervenes, on a wood lintel -- and the other on a wooden partition. The floor of the Representatives' Chamber has been treated with destructive freedom, mainly in carrying out a system of ventilating inlets, with the result less of impairing its stability than of accumulating between

> the inclined floor and the ceiling of the Doric Hall a dangerous mass of combustible woodwork, traversed by air ducts . . . .
>
> Finally, the space between the ceiling of the Senate Chamber and the roof was availed of in 1867 for the creation of three committee rooms, of which the middle room, known as the Blue Room, has an area sufficient for the gathering of perhaps two hundred people, and has habitually been so used. The flooring of this room, some thirty feet in width, is made to bear directly on the slight furring joist of the curved ceiling of the Senate Chamber. A more reckless and dangerous construction has rarely been devised.
>
> These are but the more conspicuous examples of the culpable ignorance with which the occasional work on the State House interior has been carried on for forty years, and the absence of intelligent oversight or control over contractors and workmen who have been turned loose in the building to accomplish the changes desired in any way which might seem to them most convenient.[14]

The commissioners saw an even greater danger to the building from fire than from structural weakening. They recommended that the interior of the building be made "as nearly fireproof as is consistent with the preservation in their present form of the great rooms of the principal story."[15] This would require the introduction of fireproof construction: a steel structural frame to support terra cotta flooring and a new roof structure, and fireproof plaster on all walls and as a fire stop above the important ceilings and on the underside of the roof and dome. Included in the commissioners' report were two pages of specifications for the restoration, fireproofing, and strengthening of the Bulfinch building estimated to cost $325,000.

Temporary Evacuation

In June, 1895, the Bulfinch State House was ordered temporarily evacuated. Norcross Brothers had begun an attempt to underpin the north wall of the building in order to strengthen it before connecting the intermediate portion of the extension to it. The contractor and the superintendent of construction found the wall (Figure 19) unfit to be underpinned:

> The wall is found to be hollow, the outside wall eight inches thick, the inside four inches, with a space twenty inches filled with earth. The wall has been cut through for many doors since it was first

> built, which weakened it to a considerable extent. Then the wall is virtually separated into three parts by the two corridors, thus making it more difficult and dangerous to protect than if it were a solid, continuous wall.[16]

Based upon the builders' findings, the Governor and Council ordered the Bulfinch building evacuated. In the end, it was decided to join the inner and outer parts of the old north wall with needles and to build a new twenty-inch wall against the old wall on the north side. The new wall both supported the original wall and provided a stable structure into which to tie the extension. A foundation wall five feet in depth was then built under both walls.[17]

When reoccupancy of the building was considered in November 1895, the Sergeant-at-Arms was reluctant to insure the safety of occupants. The Governor and Council, therefore, requested George F. Swain, Professor of Civil Engineering at MIT, to examine the building. Professor Swain's findings confirmed those of the Commissioners for the Preservation of the Bulfinch State House. He recommended that certain precautions be undertaken before the building was reoccupied, such as prohibiting the use of the Green and Blue rooms and limiting the amount of water in the tank in the dome which rested on weakened wood trusses.

Hearings Before the Committee on the State House

In March, 1896, the whole subject of restoring or rebuilding the Bulfinch State House was aired at hearings before the Committee on the State House.[18] Testimony in favor of preservation of the building was made by interested citizens, and representatives of the art world and the architectural profession. Experts who had examined the building, Charles Cummings, Professor Swain, Charles Brigham, and Norcross Brothers architect Mr. Cleveland, were questioned about the condition of the building and the cost of repairs or reconstruction.

Brigham's Testimony

Charles Brigham saw the rebuilding of the Bulfinch State House chiefly as a means of achieving fire safety, durability, and increased room. Brigham explained his position thus:

> I have always . . .[had] my regard for the Bulfinch building (and I claim that I have no less veneration for it than . . . [the petitioners in favor of preserving it] have themselves -- but I am employed as the architect of the State House, and . . . . I have certain duties to perform and while my

> architectural feelings might lead me to desire to preserve such a noble monument as the Bulfinch building, yet there are practical considerations I am called upon to answer.[19]

Brigham's rather lonely position on this subject did not seen to effect his standing as a popular member of the Boston Society of Architects,[20] but he was nevertheless reluctant to admit that he recommended rebuilding the State House. He did acknowledge, however, that his plans for reproducing the State House in stone embodied only the "lines" of the original building:

> I dislike very much to say what I recommend. It seems to me hardly proper as an architect. The Commissioners have thought it wise to rebuild and they thinking it wise, I made plans embodying what I think to be the sense of the people if the building was rebuilt. I have felt that if it was rebuilt, the sentiment of the people would be that it should be rebuilt practically on the same lines, following out the main idea[.] I have endeavored to keep as much to the Bulfinch lines as possible. I admit that . . . one architect cannot reproduce another man's work . . . . So in doing this I do not pretend that it is an exact copy, but I do claim that I followed the idea of the lines of the building.[21]

Restoration Authorized

The preservation of the Bulfinch State House was finally assured June 9, 1896 by an act of the Legislature.[22] The Acting Governor, the President of the Senate, and the Speaker of the House were appointed a committee to "decide upon a plan for preserving, restoring and rendering practically fireproof the so-called Bulfinch State House, substantially in accordance with the report and specifications of the Commission for the Preservation of the Bulfinch State House [of April 13, 1895]."[23] An expenditure of $375,000 was authorized for the restoration and the construction of a sub-basement under the Bulfinch building (the latter estimated at $50,000). Arthur G. Everett was selected as architect to prepare plans and supervise the work. Robert D. Andrews was chosen as his associate, and Charles A. Cummings as consulting architect. The commission was to be five percent--half the usual fee for renovation work--but as Charles Cummings refused a commission, his share was divided between the other architects.[24] Woodbury and Leighton were awarded the contract for the work. The job was completed between September 1896 and December 1897.

Restoration and Reconstruction in Fireproof Materials

Our knowledge of the restoration and reconstruction comes from specifications and minutes of the Construction Commissioners meetings,[25] and from comparison of photographs taken before and after this project. Only a very few of Everett's working drawings survive. However, original plans for all of the steel reframing are preserved in the State Library. The goal of the new work was to rebuild as much as possible in fireproof materials, and to restore the building closer to its original appearance. To the latter end, the roof and first story windows were returned to approximately their pre-Washburn configuration; staircases were redesigned; and many interior finishes and fittings were brought to a form considered more appropriate for a building of the State House's construction date. Not all of Washburn's changes were removed, however. In the Senate and Senate Reception rooms, in particular, much of his finish remained. In one case, an original feature was removed because it was assumed to be Washburn's work. The intermediate stories in the wings were taken out under the assumption that the arrangement was Washburn's and could not have been original.

Foundations for Walls and Steel Frame

The substructure of both the exterior walls and interior cross walls was underpinned. Footings were also placed under the steel columns which were to carry the weight of the dome, the roof, and the terra cotta flooring. In the case of the structure supporting the dome, the weight was brought to steel columns at each corner of the central square of the building. These in turn bore upon brick piers which were constructed adjacent to four of the original corner piers from the foundation to the second floor.[26] Granite levellers, three feet, six inches wide, were bedded in Portland cement.

Exterior Walls

The chief alterations to the exterior walls returned window and door arrangement to their pre-Washburn configuration. Within the colonnade and arcade, entrances were moved laterally one bay and windows were restored to the bays previously containing doors (compare plans 22 and 33 and Figures 13 and 29). Over the new windows on the colonnade, caps of marble from Lee, Massachusetts were installed, matching the adjacent ones in design.[27] Rectangular windows, rather than lunettes as in the original design, were placed over the new doors in the end bays of the colonnade.

A door was removed from the east end of the attic story and replaced with a bull's eye window similar to the original

window in that location.[28] New voussoirs and sills were set in the two northerly windows in the basement of the west wall so that their design would conform to the southerly windows on that side.[29]

The area over the windows on the first floor was filled in with face brick matching the old work in size and texture (Figure 24). A crack in the east wall running from the basement to the sill of a second story window and from the top of the window to the cornice was cut out and filled with new brick.[30] Changes in the original specifications detailed in the minutes of the Construction Commissioners' meeting on December 18, 1896 suggest that some brickwork of the south facade was also rebuilt:

> A proposal . . . received from Woodbury and Leighton for removal of part of the old wall of the Bulfinch front, shoring up and rebuilding it . . . was accepted.[31]

Roofs

All roofs, except that of the dome, were rebuilt with steel frames, and covered with two inch planks. Although intended to reproduce Bulfinch's roof exactly, the ridges of the new hip roofs of the wings were lower than the original and the incline of the roof more gradual (See Testing and Analysis section.) The inner surfaces of the roofs were plastered on wire lath. On the wings, slate from the Washburn roof was reused where possible. Roofs of the attic story, the colonnade, and the dormer windows in the drum were covered with copper.

Two chimneys were built above the west wall to house flues from the fireplaces in the Governor's room and the Council Chamber. (Figure 26)

Dome and Cupola

The original wooden framework and old copper on the dome were retained; and the dome was regilded. Inside, plaster on wire lath was applied to the inner surface of the wood sheathing and to the wooden ribs of the dome. New boarding and studding was placed in the drum of the dome, and the "finish of the windows of the drum" was replaced with new material.[32] Examination of historic photographs reveals that the windows were relocated closer to the top of the drum. The cupola of 1859 was removed and a replica of the original cupola was built (Figure 28). The balustrade of the new cupola was somewhat lower than in the original. The specifications directed that the pine cone be reused in the new cupola.[33]

Exterior Trim

New cornice moldings were installed at the east and west eaves of the attic story.[34] The balustrade around the wings was removed in keeping with the original design. The main cornice of the building, however, was apparently retained and repaired.

Work on the colonnade included several items, in addition to rearranging windows and doors in the outer bays. The wooden balustrade above the colonnade was replaced with a new one of the same design. New pilasters and bases were made to replace those installed by Washburn, but the original Bulfinch pilaster capitals were retained. The floor of the colonnade was thoroughly rebuilt, beginning with a fireproof substructure of terra cotta arches. These were covered with a layer of concrete and then asphalt and paved with black slate tiles.[35]

Panels under the arched windows of the second floor were replaced, but the old half balusters were re-used where possible. New window frames and sashes were installed on all floors except the basement, where only the frames and sashes of the northernmost two windows on the west side were replaced.[36]

New Terrace

The terrace in front of the arcade was rebuilt, again beginning with the substructure. New foundations and footings were built; and fireproof steel beams and terra cotta arches were installed. The floor above the arches was leveled with concrete, covered with asphalt; and the previous paving of slate and North River stone was replaced. The front and sides of the terrace were fashioned of smoothed granite, some of it recut material from the earlier terrace. A new granite balustrade and new steps were installed.[37] Probably, the hammered granite finish of the new terrace was thought to be more in keeping with the original style of the building. Aberthaw Hyatt lights were installed in the pavement of the terrace.[38]

Interior Work

To achieve the goal of making the building as fireproof as possible without disturbing the major rooms, the entire interior of the building "with the exception of the Senate, the House of Representatives and Council Chamber . . . [was] stripped of all wood construction, furring and finish . . . up to the base of the cornice of the dome."[39] The steel structure to carry the fireproof flooring was then installed.[40] All inside and outside brick walls were

stripped and repaired; any unncessary openings or flues were bricked up; and all brick walls were then replastered on wire lath on iron or terra cotta furrings. All interior partitions were formed of porous terra cotta blocks.[41] With the exception of a few places in Doric Hall, there is no indication that earlier woodwork was saved and reinstalled. Most of the woodwork in the building, therefore, dates from the 1897 restoration. Painting specifications imply that some of the trim put in place in 1897 was of papier mache.[42]

Floors

Floors were constructed of porous terra cotta arches supported by steel beams. The floors were leveled on top of the arches with concrete; then sleepers were installed and concrete was poured flush to the top of the sleepers. Where the upper floor was to be of marble, sleepers were omitted from the process.[43]

In Doric Hall and in the corridors and vestibules of the basement and first floor, floors were of white Italian marble with a honed finish.[44] Elsewhere in the basement and on the fourth floor, floors were of hard pine. In the east and west wings of the first floor, floors were of rift-sawed white oak; in the Senate Reception Room and Senate, floors were of spruce; and in the Governor's Room, Council Chamber, and all halls and corridors on the principal floor, floor finish was of quartered white oak.[45]

Doors

New doors were installed throughout the building, conforming in design to the Federal style with small top panels.[46] Doors to the Senate Reception Room and new Senate Chamber were covered with selected pigskin, upholstered to the doors with brass nails.

Electrical Fixtures

Although portions of the Bulfinch building were wired for electricity in the 1880's (the Senate in 1883 and the Representatives' Chamber a few years later)[47], the first systematic installation of electric lighting in the Bulfinch building came in 1897. The fixtures were supplied by R.D. Ireland and Company.[48] All were specified to be brass, and all parts except tubular ones, were to be cast.[49] Many of these fixtures are still in the building. In contrast to those which had just been installed in the Brigham Extension, these are full of graceful, curvilinear forms. They are fine late nineteenth century interpretations of eighteenth century style (Figure 64). Of all the chandeliers and gas fixtures previously in the Bulfinch building, only that in the Council

Chamber was reused.[50]

Staircases and Removal of Elevators

Elevators were removed from the Bulfinch building and new staircases were installed on the outer walls of the east and west corridors[51] (Figure 64, Plans 41-44). A new iron staircase was installed in the corners by the passageway south of the new Senate leading to the galleries and adjacent rooms. The molded balusters were cast iron; the handrail was wrought iron.[52]

Council Chamber (current Governor's room)

The finish of the walls in the Council Chamber was unchanged (Figure 45). A new fireproof floor was installed, however, and a fireproof wall of wire lath and plaster was placed around the wooden partition which enclosed the chamber. It is likely that the work in the Council Chamber included installation of a new fireproof ceiling since specifications contain no directions to the contrary (as they do for Senate and House Chambers). A new flue was built to the fireplace. The chandelier was, as previously stated, the only existing fixture in the Bulfinch building to be reused after the restoration work.[53] The distinctive fixture, originally designed for gas lights, may date from as early as the 1850's. Parts of the building were lighted by gas in 1849 and 1851.[54] While many gas fixtures were installed during the Washburn renovations, the Council Chamber chandelier is not similar to the Washburn fixtures in design, and may therefore already have been in place before the 1867 work.

Governor's Room (Current Council Chamber)

The Governor's room was completely rebuilt. The south wall of the room, which during the Washburn renovations had been relocated southward so that it ran east from the middle of the central window on the west wall, was returned to its earlier location just north of the window (Compare plans 25 and 44). The new wood finish in the room was specified to be of white pine.[55] Entablatures over the doors, which were copied from those in the Council Chamber, were substituted for Washburn's more sculptural pediments and pulvinated friezes.

Governor's Area

The entrance to the Governor's area from the corridor was redone as part of the restoration work. Washburn's elaborate columned entrance was replaced by the present pilastered entrance. The present stairs from the Governor's area to the floor above were also part of the 1897 work.

Senate Reception Room (former Senate)

Major changes to the finish of the Senate in 1897 were limited to the east and west walls. On the west wall, Washburn's heavy modillioned cornices and pediments over the doors and niches were removed and the balustrade above rebuilt (reusing the old balusters) flush with the wall below it. The niches were also removed. New entablatures above the doors derived in design from the remaining original ones in the Council Chamber (Figure 59). On the east wall, the central window was restored and the plaster in the north and south end bays of the wall (between the two pilasters) was removed and replaced with fireproof terra cotta furring, wire lath, and new plaster (Figure 62).[56]

Steel columns were placed within the columns at the front of and flanking the gallery, and steel beams were installed above the ceiling. The ceiling of the Senate was then supported from above by rods which ran to the wooden ribs.[57] Finally, the upper side of the vaulted ceiling was covered with stiffened wire lath and plaster as a fireproofing measure.[58]

A new chandelier with forty-eight electric lights was purchased from R.D. Ireland and Company for $600.[59] Six smaller chandeliers (now removed) were installed in the northernmost and southernmost bays of the room.

Senate (former House of Representatives)

The existing finish of the House of Representatives was retained with very few exceptions. The dentilled portion of the cornice above the rustication was removed and moldings of the cornice replaced. The doors of the Washburn era were also replaced. Metal grates were installed in the circular ventilating openings at the ends of the radiating panels of the domed ceiling where previously there had been openable glass covers. The previous electric chandelier (Figure 51) was removed and a magnificent new one installed. The new chandelier, purchased from R.D. Ireland and Company for $2,000, had 120 lights; twenty bracket lights were also purchased from the company for the House at a cost of $960 (Figure 53).[60]

While the finish of the House itself was scrupulously preserved, the east and west galleries and the ceilings of the north and south galleries were rebuilt with fireproof materials on a steel frame. The wooden finishes in those areas were also new work including pilasters at the rear of the galleries. A new brick wall was built at the rear of the north gallery and the passageway below it, where previously there had been a metal clad wall (Figure 19). New pilasters, apparently slightly narrower in dimension than the Washburn ones, were

placed at the rear of the north gallery.

The domed ceiling was supported from the metal framework above.[61] The entire upper side of the ceiling of the House was covered "with stiffened wire lath secured to the ribs of the ceiling and carried to the brick walls on all four sides [and then plastered] in order to form a complete fire stop."[62]

The decision to move the Senate to the former House of Representatives was apparently not made until the restoration was underway. Specifications called for a fireproof inclined floor to be placed in the old House Chamber,[63] evidently with the intention of using the chamber as a hearing room. The inclined floor was not installed and by 1898 the Senate occupied the room.

Doric Hall

More was done to return Doric Hall to its pre-1867 appearance than to either the Senate or House Chambers. The ceiling was lowered and its coffers removed, (Figure 38). The battle flags were moved to Memorial Hall. The lateral arches on the east and west walls were reopened to the corridors and the central arches were closed up (Figure 43). In returning the hall to its earlier appearance, however, nearly all of the finishes were made new and placed upon a fireproof understructure. The ceiling and floor were rebuilt with fireproof terra cotta arches, and as elsewhwere, the brick walls were stripped and replastered on fireproof lath. Of the woodwork, only the entablature blocks and cornices over the columns were old. These were carefully removed and reinstalled over new columns.[64] The new columns were made by casing iron pillars "with columns of fibrous plaster cast from one of the [previous] wooden columns."[65] The pedestals were cast of Keene cement and covered with marble.[66]

Painting of Interiors

In general, all new finishes were painted with oil paint and then varnished. The varnish was rubbed smooth with pumice.[67]

Cost of Restoration and Completion

The restoration, unbelievably enough, cost less than anticipated by over $100,000.[68] Its completion and the concurrent centennial of the Bulfinch State House in 1898 were celebrated with suitable fanfare. As a final embellishment, the dome of the State House was lighted with electric lights for the first time in 1898.

East Entrance Rebuilt

In March, 1902, the Legislature authorized the rebuilding of the east entrance to the Bulfinch State House according to plans by Robert D. Andrews so that the entrance would conform to the grade of the new park east of the State House.[69] Steps to the entrance were broadened and their numbers increased. The actual entrance was relocated upward by one course of granite, and the door surrounded by a plain rectangular stone architrave.[70]

Coal Pocket Constructed

The coal pocket was constructed under the park east of the Brigham Extension in 1902, providing storage for 4,500 tons of coal for the electric and heating plants.[71] The underground structure was 106 feet long, 76 feet wide, and 19 feet high.

3.6 Chapman, Sturgis and Andrews East and West Wings (1914-1917)

East and West Wings Proposed

Even after the construction of the Brigham Extension, some departments of the government had to be housed outside the State House. In 1907, a commission was appointed to form a plan for again extending the State House. Although the construction of East and West wings was recommended by the commission as the best ultimate solution, it was not until 1913 that the plan was adopted. In the interim, a number of other options were considered, primarily in hopes of finding a solution which would avoid the expensive land takings required for construction of the West wing,[1] land takings which eventually cost the State $1,365,000.

The plans which were accepted by the legislature in 1913 were prepared by architects William Chapman, Robert D. Andrews, and R. Clipston Sturgis in cooperation with the State House Committee and the State Art Commission, a body established in 1910.[2] The goal of the undertaking was to erect completely fireproof lateral wings which would furnish the required space in an economic manner. Walls were to be brick, faced perhaps with stone or cement. Construction materials were to include a steel frame, metal window frames and sashes, steel doors, marble or linoleum floors, and marble architraves, baseboards, and dado. No wood was to be used either as construction material or finish. Although the building was conceived of as somewhat utilitarian in nature, the construction and interior finishes were to be "first-class."[3] One of the architects described the building scheme as "factory construction,"[4] with load bearing posts along the central corridors so that partitions could be placed as needed.

The proposed size allowed sufficient space for current needs and provided some reserve space for future growth. One of the most important features was a hearing room capable of holding 900 people. This auditorium, located at the end of the forward projection of the East wing on the basement level, was later named the Augustus P. Gardner Auditorium.

Wings Designed to Harmonize with and Enframe Bulfinch State House

The length of the symmetrical wings and the forward projection of the end pavillions was based upon the amount of space available East of the State House before Bowdoin Street intervened, combined with suitably proportioned forward extensions. The architects intended the wings, connected at the very rear of the east and west elevations of the Bulfinch building, to act as an enframement for that building. Although

it was not stated, they may also have sought to set the original building apart visually from the Brigham Extension. The only changes proposed for the Bulfinch building were the continuation of the balustrade, fashioned in copper, around the perimeter of the roof in order to tie the building into the total composition, and the removal of the east and west entrances of the Bulfinch building.

The most important consideration, however, was that "the new portions, while harmonizing with the old, should not challenge comparison with, but should be subordinate to, the Bulfinch front."[5] The exterior walls were to receive planar treatment, "the surface of the connecting links broken only by flat pilasters, with a slight accent on the three center bays, the forward wings . . . terminating on the end with the Corinthian order of the Bulfinch front."[6] The resultant style of the wings was a rather stripped neoclassical, which anticipated in some respects the Moderne.

Material for Exterior Walls of Wings Debated

The question of the material to be used for the exterior walls was the subject of considerable debate. The State House Commissioners, Art Commission, and architects originally recommended brick painted to match the Bulfinch front, but the legislature of 1913 required that the wings be either red brick or stone.[7] The Art Commission was opposed to marble, and the Society for the Preservation of New England Antiquities backed up the Art Commission by presenting a petition that the Commission be consulted in the choice of finish material.[8] The Governor and Council, however, authorized the use of marble. Upon the advice of the architects, the Bulfinch front was painted white to match the wings.

Construction of the Marble Wings

Our knowledge of construction of the wings comes from thirty-seven original plans in the State Library, a small number of drawings and blueprints in the D.C.P.O. collection, a scrapbook of newspaper clippings and three volumes of photographs in the State Library, and material in the State Archives including the published specifications, State House Building Commissioners' meeting minutes, correspondence, and miscellaneous accounts.

Final plans for the wings were approved in the spring of 1914. Among the three architects, it is not clear from documents how the work was divided, nor which, if any, had more responsibility than the others. The State House Building Commission oversaw execution of the work between 1913 and 1916.[9] The East wing and the connecting link were constructed in 1914 and 1915. The forward projection of the

West wing was begun in 1915, after the land takings had been completed.

William Crane of Cambridge was awarded the general contract for both phases of construction. Subcontracts were awarded to: Ardolino Brothers of Boston for models and carving, American Kalamen Works of New York, New York for bronze doors and windows, U.S. Metal Products Company of Boston for steel doors and windows, C.A. Bray Company of Boston for plumbing, Edwin C. Lewis, Inc. of for electric wiring and fixtures, Ames Iron Works of Boston for the generating unit, Bay State Heating Company of Boston for heating and ventilating, and the Vermont Marble Company of Montpelier for the exterior marble.

The choice of exterior marble was the subject of contention. Many felt that marble from Lee, Massachusetts should be used. An act was even passed by the legislature in May of 1914 stating that in acquiring stone or brick for the wings, the Building Commission should give preference to material quarried or made in the Commonwealth.[10] Nevertheless, Vermont marble was chosen primarily because the Vermont company's bid was 75% of that of the Massachusetts company's. The Vermont marble was used to face the exterior walls above the basement level. Granite was used to cover the basement stories. Lee marble may have been used on the interior, however.[11]

Another source of contention was the amount of money requested in payment by the space expert, Ralph Comfort of New York, who was hired by the State House Commission to design the layout of the wings. His anticipated total charge of $32,000 was far beyond the agreed upon amount, and only after negotiations was a compromise reached.[12]

The progress of construction of the wings, the building of the steel structural frame, the placing of the brick backing and stone facing of the exterior walls, may be traced in three volumes of photographs by Paul J. Weber in the State Library (Figures 30 and 31).[13] Foundations were of reinforced concrete cast in place. The top floor was a penthouse story partially concealed behind the marble balustrade (Figure 36). The roof of the building was formed of "panels of full porous 3 inch terra cotta book tiles"[14] laid in cement mortar on steel tees between the roof trusses. The pitched roof was covered with soft 16-ounce copper, the joints of which were laid in white lead.[15] The deck behind the balustrade and the vertical walls of the penthouse were covered with "five-ply plastic slate roofing composed of three layers of plastic slate and two of roofing-felt with a finished surface of inlaid slate."[16]

Fireproof interior construction, as detailed in the specifications,[17] included the following. Floors were of

either concrete reinforced with steel rods, or terra cotta flat arches. A filling comprised of cement, sand, and cinders, topped by a thin layer of cement, was applied where floors were to be finished with linoleum. Where marble or terrazzo were the floor finishes, the filling was omitted and a cement bed was laid. Floors of the main corridors and of the main entrance, lobby, and hearing room vestibules were to be of white Italian marble with Monson black slate borders, both brought to a dull polished finish. In most other locations floors were linoleum. Terrazzo was used in toilet rooms and a few other places.

Partition walls were terra cotta. Cornices were of stucco. In general, all walls and ceilings were plastered on wire lath or directly on masonry. Exceptions were the walls in the main lobby in the East wing and the lower portion of the walls in the corridors and toilets. These were faced with polished white marble. The facings were specified to be of selected Massachusetts, Vermont, or Italian marble, but other than a newspaper reference stating that marble from Lee, Massachusetts was to be used on the interior, documents verifying the type actually used have not turned up.

The marble finishes were simple in design. The plain dado in the corridors was capped with a plain molding, rectangular in section. Where corridors were formed in the Brigham Extension to connect the extension to the lateral wings, the more elaborate Brigham style of molded marble dado was kept, however. Architraves and reveals of windows and doors in the wings were similarly plain, formed from pieces of polished Belgian black marble or grey Knoxville marble also rectangular in section. Windows, with certain exceptions, had polished white marble stools. Baseboards of Belgian black marble were used in all rooms with linoleum floors. Like the corridors, staircases at the outer ends of the connecting portions of the wings had polished white Italian marble facings, treads, risers, and landings. The ball finials on the newel posts of the iron balustrades were of Belgian black marble.

"All the exterior windows and frames . . . [were] to be of wood core covered with bronze . . . . [The] exterior surfaces were to be prepared for oil paints."[18] In the exterior doors, a white pine core was covered with bronze. Doors in most interior locations were of hollow steel.[19] Their frames were also steel.

Apparently, none of the original lighting fixtures of the wings survives. Correspondence indicates that many were removed in 1958 under project G-302. Fixtures removed at this time included approximately one hundred chain link fixtures with Hyperion type shades, some of which were "used for replacement in the State House and Ford Building."[20] Two chandeliers

were sold to M.B. Foster and Company.[21]

No descriptions of the original paint colors in the wings have been discovered. Decorative embellishment was minimized, and the wings therefore received none of the elaborate newspaper coverage accorded to the Brigham Extension upon completion. Two carved marble mantelpieces were installed in the Governor's rooms in the West wing, however. They were salvaged from the house at 28 Beacon Street when the building was razed to make way for the West wing in 1916.

Alterations and Repairs in the Twentieth Century

Systematic records of alterations and repairs to the State House in the twentieth century have not been kept. The following summary is gleaned from examination of some of the plans and miscellaneous documents in the D.C.P.O. collection, from the occasional reference in the legislative acts and resolves, from a few sources found in the State Library, and even from personal recollections. A complete review of the D.C.P.O. plans, the vast majority of which deal with alterations and repairs to the mechanical and electrical systems, was not possible in the given time.

Reorganization in 1919

Under an act providing for the reorganization of the government in 1919, the State House Commission was abolished, and the care and operation of the State House was placed under the supervision of the Superintendent of Buildings, a newly-created position.[22] Incident to the reorganization, many departments were relocated in the State House, and "in nearly every department it was necessary to make alterations, such as taking down plaster and steel partitions and rebuilding same."[23] This probably represents the first of a number of times that partitions were moved in the less important spaces, particularly in the lateral wings.

New Niches in Memorial Hall

In 1920, four new niches were constructed at the sides of Memorial Hall, similar to the original four niches in the corners of the hall, to house the battle flags from the Spanish American War and World War I.[24] Several alternative plans for the work by William Chapman are in the D.C.P.O. collection. It may have been in connection with building the new niches that a large quantity of marble trim now stored near the coal pocket was removed from Memorial Hall.

New Corridor, First Floor

In 1923, the legislature authorized the construction of a corridor on the first floor which would connect more directly the corridors of the East and West wings.[25]

Exterior Paint Removal

In 1928, the paint was removed from the exterior brickwork and marble trim of the Bulfinch building by sandblasting. The mortar joints were then repointed and the brickwork waterproofed. The granite work, including the steps and risers of the front of the building, was also cleaned by sandblasting, and repointed.[26] A contemporary newspaper description indicates that removal of the paint revealed that portions of the marble belt courses and some keystones, several of which were under the portico, had been replaced over the years with "dark red granite or brown sandstone."[27] All of the non-matching pieces were subsequently removed and replaced with white marble.

New Chandelier, Governor's Room

In 1929, a new glass chandelier was installed in the Governor's room. Distaste for the brass fixture put in in the 1890's led Governor Allen, with the approval of the Art Commission, to seek a "more appropriate...Georgian" design. They chose the current chandelier, which was designed by Edward W. Poerner of the firm of White, Reilly and Eaton of Boston.[28] In 1937, the Council and Governor switched rooms. Since that time, the former Governor's room has been occupied by the Council, and the original Council Chamber has been the Governor's Office.

Major Renovation, 1957-1960

From 1957 to 1960, major exterior renovations to the Bulfinch building were undertaken. The specified work is detailed in drawings by Edward Sears Read and Associates filed under contract G-803 in the D.C.P.O. collection. Nearly all of the exterior trim on the building was replaced with new material reproducing the design of the old. The work included new sashes, window casings, and pilasters on the cupola; new cornices on the main and attic stories (possibly with retention of earlier brackets and modillions); new windows and doors in the attic story; a new main entablature of the building; new framing and finish of the colonnade (except door casings and iron railings) including new cast iron columns and cast aluminum capitals, half capitals, and pilaster caps, and a new slate floor; new doors and door casings within the arcade; new window sashes and many casings throughout the building, and new window trim in the arched windows.

Read's plans note that certain window casings were to be retained: those in the colonnade and arcade, on the small upper windows of the west elevation, and in the basement story. Little of the material specified for retention dated from the Bulfinch period, however. The casings, for example, were all later replacements of Bulfinch originals, dating primarily from the 1867 or 1897 work. (See Testing and Analysis section for a more complete analysis of the date of existing exterior finishes.)

Original Material Surviving Today

There is a possibility that some original brackets and modillions were stripped of paint and reused in the main and attic cornices in 1960, and that some of the earlier trim of the arched windows was reused at that time. However, the only exterior trim materials which have so far been verified through physical examination to be original or very early work are the cornice of the drum of the dome and the iron railing on the colonnade.

Archives Building

The last major addition to the State House was the construction, in 1958 to 1960, of the underground Archives building. A three-story structure built within the ell formed by the west wing, and covered by the terrace at the southwest entrance, the bomb resistant repository was designed by Maurice A. Reidy, engineer, and Perry, Shaw, Hepburn and Dean, consulting architects. The building is constructed entirely of reinforced cast-in-place concrete, the exterior walls and foundations being 24 inches thick.[29]

Other Alterations

The marble portico opposite the Ashburton Place gate was removed under State Contract No. G-59-2 in 1963. The stonework had become badly deteriorated. In 1966, the marble wings were steam cleaned and sandblasted at considerable cost.[30] In 1969, new bronze exterior doors were installed on the north and south sides of the East wing under contract G64-2B.

In the early 1970's, the great elliptical stained-glass skylight was removed from the ceiling of the House of Representatives. Also in the 1970's, the south entrance to the House was remodelled to allow for handicapped access, and the seating was rearranged when the number of representatives was reduced.

3.7 Site and Landscape

FIRST PERIOD - 1795 to 1867

1789 Bulfinch column erected on top of Beacon Hill.

1795 Ch. 66, Resolves of 1794: Agents empowered to acquire from the Town a site for the new State House. First choice: the late Gov. Hancock's pasture. Alternative site: northeast corner of the Common.

1.6 acres of fenced pasture acquired on Beacon Street, abutting on east side the passageway to Beacon Hill and on the west, the Hancock garden. Price L4000. Suffolk Deeds 182:144.

Plan of site: State Archives, 3rd series, vol. 62, p.4, # 1572.

Cornerstone laid, July 4.

1797 Resolves, Ch. 130 & 137: Agents directed to build "small convenient Brick House and appurtenances" not to exceed 20' by 40', as well as a place for the watchman and a house for the messenger. They were to complete the State House yard and fences.

Resolves, Ch. 145: Agents empowered to purchase adjoining land to the west for messenger's house.

Paid to Adam Rupe $129 for 43 squares of grass, plus $3 additional for "forming the Bank," indicating a terraced lawn (State Archives, Vol. 267, Accounts, p. 22).

1798 State House occupied.

Paid to Daniel Cowing for 84 days of work on the grounds from August to December, $169, plus 458 days work by hired men, $534.92. Cowing provided 107 10-foot squares of sod for $142.66, and laid them for $107. He charged $1 for lime, and $1.50 for horse hire for going out of town for sods. His total bill was $968.41.
Edward Robbins provided 107 perch (i.e. rods or 5 1/2 lengths) of fence wall, as well as gates and flagging (Accounts, vol. 267, pp. 166 and 174).

1799 Daniel Cowing was paid $165.83 for 38 days of labor by himself and others in laying 54 squares of sod. Amos and Jedediah Lincoln received $232.16 for 133 feet of "front fence" and 2 pair of gates. For building 2 "little Houses and Watch House," they were paid $234.92. 168 yards of stone flagging were laid the same year (Accounts, Vol. 267, pp. 193 to 195).

1802 Pump and well built in yard.

1805 Resolves, Ch. 138: Messenger to erect a fence on southwest line of yard to match fences on other sides, and to extend sidewalk along northerly side.

Bostonian Society watercolor, c. 1805, shows fences, and curve at main entry gate.

1809 For flagging and paving in the yard: $76.75.

1811 The town sold the top of Beacon Hill (6 square rods) and the passage to it to the heirs of Governor Hancock. The Bulfinch monumnet was removed as Beacon Hill was cut down by approximately 60' behind and northeast of the State House. J.R. Smith drawings (Bostonian Society) show topography in 1811-12. 1810 view by Joseph Kendall shows terracing below front facade of State House (Harvard University Archives).

Ch. 57, Resolves: Repair committees authorized to relace the row of Lombardy poplar trees in the yard (shown in early views) with elms.

1814 Ch. 174, Resolves: Repairs authorized for the flagstand and paved walk leading from Beacon Street to the entrance.

Messenger's house and three outbuildings whown on J. G. Hale map of 1814 (State Archives #4022).

1816 Resolves, Ch. 1829, and 62: Authorization for a new well and a fire engine house to be built in the yard. Engine house to be an addition to the watch-house or separate. Expense for both not to exceed $500.

Resolves, Ch. 177: Committee appointed to superintend straightening and lowering of wall at rear of yard, altering the steps on the east side, and regrading and widening of Sumner (now Mt. Vernon) Street, which was now the summit of Beacon Hill. The committee was also asked to negotiate with the developers of adjacent land to the west who wanted the State House privies moved; a possible trade of land in return for construction of new privies was to be explored.

$673.17 paid to J. Hunnewell for work on front yard and walk, plus $19.50 for paving.

1819 An unaccepted report suggesting investigation of possible land acquisition adjoining the State House lot on the west proposed that if the land remained in private hands the Governor and council come to an agreement with the owners that "the houses to be built upon said land shall be placed at a convenient distance from Beacon Street" (State Archives, Unenacted #S6311). An early instance of concern for the setting and view from and of the State House.

1821 The Selectmen of Boston petitioned to alter and repair 300 feet of fence north and east of the State House. Estimated expense to the town was $2,125.

1823 Resolves, Ch. 59: $150 appropriated for repairing the terrace.

Suffolk Deeds 307: 237: a way "to be forever kept open by the Commonwealth" was opened along the western boundary of the State House yard, from Mt. Vernon Street to Beacon. Called State House Avenue at first, it was named Hancock Avenue by the officals of Boston, which had just become a city. (In 1905 the State Supreme Court ruled that Hancock Avenue was a private way.)

1824 Resolves, Ch. 36: The Boston City Council was authorized, at their request, to take down, straighten, and rebuild the north and east walls of the yard, at their expense, but subject to approval by a committee to be named by the Governor. The east wall was to be set 3' nearer the State House in order to allow for a wider sidewalk. New gates and steps were to be installed at the north and east entrances. The wall was to be built of "good hammered stone," with an iron picket fence to be placed upon it.

Resolves, Ch. 42: Report of the Committtee overseeing above changes. They found the work necessary because of the removal of the top of Beacon Hill and the subsequent lowering of Sumner Street. State House security required sturdy walls. The new wall was to be solidly trenched, with its top level with the ground inside the yard. The iron fence was to be at least 4' highter. The wall could curve at the northeast corner. The committee was concerned that the abutting streets be wide enough for carriages, and provided with adequate sidewalks. Suitable stone steps and a stone-posted iron gate were to be built at the east entrance to the yard. On the north side a single and a double width gate were to be built. A carriage way and sidewalk were to be built to approach the west end of the State House from Sumner Street, with the grade to be adjusted as necessary. The Beacon Street gate leading from this way remained in place until 1919. Further, the City was to construct edifices for "necessary accomodation" west of the new approach drive. The land north of the State House was to be sloped away from the building for drainage. Ten feet inside the new wall a "glacis" (terrace) was to be built, sloping to the north, with its base to be on a level with the tip of the new wall. The three committee members received, between them $125 for their services (Resolves, Ch. 25).

Resolves, Ch. 20: Special committtee appointed to complete negotiations for an exchange with the proprietors of the lands immediately west of the yard, making certain that new construction there not "injure the beauty or value of the

public lands."

Between 1821 and 1826, the City was purchasing land between Sumner, Temple, and Derne Streets for a future reservoir. Suffolk Deeds 273:246, 281:251, 294:254, 302:163, 307:240, and 312:120.

1825 D. Treadwell's report to the mayor and aldermen of Boston on the water supply recommended that the Beacon Hill reservoir (one of 3 proposed) be 100' square, 8' deep, with hammered stone walls and stone fences. Owing to the sandy soil of Beacon Hill, a 4" thick floor was needed.

Resolves, Ch. 39 and 97: In addition to the painting of the State House, the steps and fences were to be repaired. $438.23 were allottted to pay for a covered passage-way at the east entrance. The alterations and improvements in the yard were not yet completed.

Suffolk Deeds 304:268: John and Henry Hubbard and Cornelius Cooldige, developers of the lands west of the State House, sold to the Commonwealth for $1 and "gore" (triangle) of land at the northwest corner of the yard, with 15' frontage on Sumner Street and 83' along the brick wall of the yard. This straightened the boundary line on the west from Beacon Street to Sumner, pursuant to agreement based on an 1824 resolve.

1826 A report on the exchange of lands of the State House was filed in the Suffolk Registry of Deeds (307:273). Developer Coolidge and his associates had laid out a 40' wide court (now Mt. Vernon Place) from Belknap (Joy) Street toward the west end of the State House. Coolidge was to open the court all the way to the State House wall for people and carriages to pass through. No houses were to be built there, ever. Coolidge was also to lay out and finish an 8' wide brick or flagstone walk from Beacon Street to Sumner at the west end of the State House (Hancock Avenue), graduated to be of easy ascent, and well drained. The new street and place are shown on Charles Stimpson's 1837 map of Boston. Cornelius Coolidge was also required to build an iron fence on a solid stone base at the west boundary, similar to the fence on the east, with a double gate opening into Mt. Vernon Place. Coolidge was free to take and use the bricks from the old wall, if he wished, and was to be paid $1500 as well. While the work was in process, Coolidge was expected to make sure the State House yard could be secured from intrusion at night. Finally, Coolidge was allowed to remove all the privies at the west end of the yard, as he had requested, if he filled and graded the area and constructed 8 water closets in the southwest corner of the State House cellar.
The Governor, Levi Lincoln, approved everything except the water closets. The technology was new, and he was not sure they would work in a public building. He prevailed upon Coolidge and his partners to post a $5000 bond. If, in 3

years, the water closets did not work out, they were to remov
them and build new privies.
All the work was completed by February 1826.

Coolidge and his partners divided the land along the new fenc
at the west end of the yard into 7 25' by 60' lots, from
Beacon Street to Mt. Vernon Place. The center lots opened on
the new 20' lane (Joy Place) from Belknap (Joy) Street. Thes
lots were subject to a height limitation of 3 stories, which
was part of Coolidge's agreement with the Commonwealth. This
was the first restriction on building height on Beacon Hill.
Suffolk Deeds 314:236, 317:117, 318:189, 318:200, and 321:180.

Resolves, Ch. 94 and State Archives Document #H9912: The
Committee reported on the 1824 Resolve to rebuild the north
and east walls of the yard. The original brick walls were
crumbling and delapidated. $6000 would be enough to make the
repairs necessary, they believed. They recommended the hiring
of a suitable architect to design a new principal entrance
gate and an iron picket fence on a stone base along Beacon
Street. They further recommended a slight lowering of the
front yard, and the rounding of the east and west corners, to
present a better appearance from Beacon Street and the Common.

Alexander Parris was hired to design the new gate and steps
which were probably constructed in this year. The granite
posts and radial steps (cut and finished at the State Prison)
were still in place, as are the iron gates with a sunburst
pattern, and a section of iron fence with alternating
spearheads and fleur-de-iron fence atop the pickets. HABS
drawings, Boston Public Library.

Resolves, Ch. 5: The Mayor and Aldermen of Boston were
authorized to connect pipes from a new reservoir on Sumner
Street to spigots on the north side of the State House, and to
install drains in the yard there. This reservoir preceded a
far larger one installed 20 years later.

1827 Laws and Resolves, p. 452: In his annual message, Gov.
Lincoln praised the new gates and fences, saying, "The
improvements have been done with economy and regard to
appearance....splendid gateway....a style of excellence in
workmanship and material never anywhere surpasssed."

Resolves, Ch. 52: Expenses had greatly exceeded estimates.
The old fence foundation was insufficient for constructing new
work above it. More materials and more work were needed. The
terracing on the east had to be changed owing to frost action.
But no work had been done unneccessarily, and the governor
felt that the results were "finished for the ages," and "worth
of the character of the State."

Resolves, Ch. 80: $5646 appropriated for work and materials
on front gate and fence. $550 appropriated for repairs to the

west end of the yard.

A drawing by Andrew Jackson Davis and later engravings made from it show the granite "piazza," gate, and wall built by A. Parris the preceding year.

1832 The city of Boston purchased land between Temple, Derne, and Bowdoin Streets, including the 1821 Bowdoin Schoolhouse.

1833 Solomon Willard added an iron arch, lanterns, and railings along the steps up to the south entrance to the State House. He supervised regrading there. HABS drawings, BPL.

State Archives, #H12851, roll of accounts for repairs to front yard: 3106' of sod were laid, at $414.31 for the job. Stone, stonework, and blacksmith work added another $2641.00. 203' of iron railing totalled $915.32. Willott and Wilson were paid $10.30 for watering grass with an engine in the dry months of summer. It was they who constructed new grass banks.
All this work was supervised by a committee which had approached Solomon Willard and the surveyor, Mr. Fuller, to consider reducing the slope and banks to afford "a better exhibition of the architectural proportions of the State House." The upper terrraces were lowered, made less steep, and more steps were added. Old marble from the cellar was used on the piazza. The new steps were made double in width. Drains were re-layed. All work was completed by August 20.

1840 Resolves, Ch. 49: Three citizens were permitted to plant at their expense two rows of trees in the north yard, not less than 6' or more than 13' from the north fence. The trees were to be either mountain ash, sugar maple, or lime.

1844 Resolves, Ch. 72: In addition to repairs and repainting of the building, the fences were repainted. The wells were running dry, and their deepening was recommended (Legislative Documents regarding repairs and alterations, 1841-55, collected by G.M. Thatcher).

1846 Resolves, Ch. 95: $600 appropriated to repair the fences and sidewalk.

The city was engaged in purchasing land and letting contracts for a reservoir on Beacon Hill to hold water pumped in from Lake Cochituate in Natick. Suffolk Deeds 494:39, 527:155, 573:37, 576:233, 576:259, 577:40, and 577:161.

1847 To enlarge the reservoir, more land was taken by the city along Temple Street. The city also acquired the Bowdoin Public School site at the corner of Temple and Derne.

The Commonwealth sold to the city the property at 46 Hancock Street, on the east side, for $13,000. This was the

The house of the sergeant-at-Arms at 12 Hancock Street was ordered to be sold.

1863 The Mansion House estate of the late Governor Hancock was sold by his heirs to Gardener Brewer and James Beebe. The property fronted on Beacon Street, for 93', and was backed by Joy Place. The new owners divided the property, and tore down the old Hancock house. Suffolk Deeds 828:266.

1865 The bronze statue of Horace Mann by Emma Stebbins was installed and dedicated on the upper front terrace, in a position corresponding to that of the Webster statue (Resolves of 1859, Ch. 113, and Resolves of 1861, Ch. 66).

Sergeant-at-arms', formerly the messenger's, house, now to become part of the reservoir lot. The property at 12 Hancock Street was purchased to provide a new house for the Sergeant-at-arms.

1849 The reservoir was completed and filled. Its walls were of granite, 3' thick. It was roughly 200' square, bounded by Hancock, Derne, and Temple. Its fourth side paralleled Mt. Vernon, but was behind a row of houses along that street. It rose 40' above the level of Mt. Vernon Street. The drop to Derne Street was 18', so the reservoir's coping was 58' above the Derne Street sidewalk. Five huge arches of granite were visible on the Derne Street wall. A plan of the reservoir in place, dated 1851, is in the collection of the SPNEA. Another drawing appears in the 1868 book A History of the Introduction of Water into the City of Boston, by a member of the water Board. See also undated photograph, negative #1780, at the Bostonian Society. The city water commissioners were ordered to convey water to the State House yard. Two fountains were installed on the lower terrace in front of the State House, at a cost to the Commonwealth of $2,329.35 (Resolves, Ch. 5). A drawing dated 1857, at the Boston Athenaeum, shows one of the fountains in operation.

1853 Gridley J.F. Bryants's plans for an addition at the rear of the State House were approved.

1855 While the new addition was under construction, extending the building to Mt. Vernon Street, the granite underpinning of the south, east, and west walls of the old building was rebuilt. The "glacis," or embankment, at the west end was removed to the level of Hancock Avenue, and the ground regraded and paved. The terraces on the front or south side were regraded and lowered to look better from Beacon Street. The improvements were designed "to give the building the appearance of standing on, not in, said embankment" (Legislative Document #H183, p.9). According to a paper read by Thomas A. Fox to the Boston Society of Architects in 1895, the grade of the front of the building was lowered about 4 or 5 feet (American Architect and Building News 48:1018, 29 June 1895, p. 129). Prints and engravings made after 1855 show clearly the grade change, revealing the granite blocks of the basement. All work was completed by Febrary 1855.

1857 Resolves, Ch. 65: A joint House and Senate committee was established to oversee repairs and improvements to the State House and grounds.

1859 The bronze statue of Daniel Webster, by Hiram Powers, was installed on the granite pedestal on the upper terrace in front of the State House (Resolves, Ch. 89). The Kilburn engraving on page 232, Vol. III, of Winsor's Memorial History of Boston shows the statue from the rear, just above the fountain, facing toward Park Street.

SECOND PERIOD - 1867 to 1888

1867 Extensive remodelling of the State House building.

1872 Resolves, Ch. 62: Funds were appropriated to grade and turf the passage-way west of the State House (Hancock Avenue).

1874 Resolves, Ch. 76: Sidewalk repairs were authorized.

1878 The Beacon Hill reservoir, no longer needed, was abandoned, and "will probably, in a few years, become the site of a court-house or some other public building" (King's Hand-book of Boston, 4th edition, p. 70).

1881 The basement of the State House was extended under the Bulfinch arcade and portico. Windows were added to light the new offices. The grade at the building may have been lowered slightly at this time.

1882 Plan of streets, estates, and building lots in the vicinity of the State House: State Archives, 3rd series, Vol. 61, p.3. Lot lines and topography are shown for the area between Derne Street and Beacon. The end of Mt. Vernon Street between the State House and Bowdoin Street is shown as a narrow passage, and is called Beacon Hill Place. Mt. Vernon Street is shown as making a right angle at the east end of the State House, and leading into Beacon Street. In the 1874 Atlas of Boston, this section of road had been considered an extension of Temple Street.

Acts, Ch. 262: The Governor and Council were authorized to purchase or take for use as office space the estate of Samuel Way, east of the State House between Mt. Vernon Street, Beacon Hill Place, and Bowdoin Street.

1883 Suffolk Deeds 1599:45: The Way estate on its 8400 square foot lot was taken by eminent domain for $115,000. The building thereon was named the Commonwealth Building, and used until 1900.

The reservoir behind the State House was demolished. A Bostonian Society photograph, neg. # 456, shows the great arches on Derne Street being taken down.

1884 A photograph dated 1884, at the Boston Athenaeum, shows ornamental oval flower beds encircling the fountain basin and the statues on the front terraces. An SPNEA stereo view from the same period shows these flower beds, as well as two small trees in front of the building on either side of the main entrance. The trees did not remain long, but flower beds have recurred from time to time up to the present.

1886 Resolves, Ch. 87: The Governor and Council were authorized to "plan for the use, occupation and improvement" of land in the

vicinity of the State House, including its grounds. They were to consider new construction or alterations to provide more space, "provided, that the present State House, and particularly the southern front thereof, be substantially preserved."

1888 Rep. Malcolm Sillers addressed the Committee on the State House. His published report is in the State Library. He proposed taking land from Temple to Hancock Street, to Derne at the rear. If the Commonwealth does not soon take the reservoir lot, the city will sell it for building purposes. This land, Sillers contended, would be far cheaper than land along Beacon Street for an addition. He suggested bridging Mt. Vernon Street, which could look like Venice. He included with his report a sketch by architects Andres and Jaques, showing how the new building could have a terraced north front comparable to that on Beacon Street, with fountains and terraces.

Acts, Ch. 349: The Governor and Council were authorized to acquire all the land north of the State House between Mt. Vernon, Hancock, Derne, and Temple Streets, as well as the land along the easterly side of Temple between Mt. Vernon and Derne. In addition, they were empowered to discontinue, widen, or relocate any streets within the area they were to acquire.

Resolves, Ch. 92: $5000 were appropriated for the preparation of a land acquisition and building plan to be submitted by January, 1889.

Suffolk Deeds, 1869:225: Gov. Oliver Ames signed the order authorizing the taking of lands in the area described in Ch. 349, including the reservoir lot.

FOURTH PERIOD - 1913 to the Present

1913 Acts, Ch. 830: A new State House building commission was established to plan for new lateral wings, with authority to alter the grounds and approaches as necessary. All buildings were to be removed from the Mt. Vernon Street lots which the Commonwealth had taken in 1901.

House Doc. # 2132: More land takings authorized west of the Bulfinch building.

Construction began. Two albums in the state Library contain photographs by Paul J. Weber documenting the construction process from 1914 to 1916. The recently completed portion of the East Park along Beacon was destroyed, while Gen. Hooker rode serenely through the chaos of construction.

1915 By June the east wing was nearly finished. The steps and balustrades which are in place today had been completed at the so-called Hooker entrance. The entrance plaza was designed by the architects of the additions, Andrews, Chapman, and Strugis, with planting by landscape architect Arthur A Shurtleff (later Shurcliff). In a Weber photograph, seven newly planted trees line the plaza on either side, exactly as they do today. The European lindens which were set out originally in this location were replaced at a later date by ornamental cherries. Linden trees still in place were planted along the forward end of the new east wing, adjacent to Beacon Street. Shrub honeysuckles were set in the corners near the building. Four Lombardy poplars, no longer extant, were planted along Bowdoin Street. Boston Sunday Post, 23 May 1915; Boston Herald, 17 June 1915.

Meanwhile, the west wing was only partially completed. Newspaper articles urged that the building be finished. Ch. 256, Acts of 1915 authorized land takings to make possible a forward projection on the west wing similar to that on the east.

All the property along Hancock Avenue between Joy Place and Mt. Vernon Place was taken, as were the adjacent carriage house and stable lots. The former Robert Treat Paine estate at #16 Mt. Vernon was taken as well. Suffolk Deeds, 3902:585, including a plan, 3903:49, 3903:50, 3903:48, 3903:72, 3903:71, 3917:381, 3917:382, 3917:383, and 3917:384.

1916 Acts, Ch. 250: The above land takings were not enough. To complete the grounds more land was to be acquired along Beacon Street in front of the west wing. The four lots taken along Beacon included the house which had been built on the site of the Gov. Hancock house after it was torn down in 1863. The two remaining house lots on Hancock

Avenue were taken, too. Suffolk Deeds, 3988:321 (including a plan), 4050:510, 4066:505, 4070:623, and 4080:264. The total value of this property was $619,500. Hancock Avenue became the walkway to the new west wing.

An unidentified plan was drawn to turn the remaining portion of East park into a parking lot, leaving the monument and the two statues, allowing a small grass plot near Mt. Vernon Street, closing the Ashburton gate. (#GA-8, undated, but marked by the archivists as of 1916.)

1917 The Boston Atlas shows the building completed before the grounds on the west had been cleared and finished. The plans for the grounds were done by William Chapman. (Two drawings, flat file II, #GA13).

1918 Special Acts, Ch. 182, p. 273: Up to $5000 was allotted to care of the grounds.

Landscape architect Arthur Shurtleff designed the Liberty Mall on the Common as a war memorial. Its purpose was to extend the north-south axis of the State House with two broad paths and an allee of English elms, aligned to match the width of the Bulfinch front. The mall ended at the relocated Brewer fountain. Shurtleff expressed the wish in 1918 and again in 1944 that the ancient elms by the Shaw memorial were not there; they obscured the view of the State House. "Autobiography of Arthur A. Shurcliff"; Landscape Architecture 19 (Oct. 1928), p.27.

SPNEA photos dated Oct. 1918 show the State House fence lined with posters promoting the 4th Liberty Loan.

1919 Special Acts, Ch. 153, Item 126b: $35,000 allowed for grading and completing grounds. Half the work was finished this year.

According to Chapman's plans, the front of the State House grounds became pretty much as they presently are at this time. At the northwest corner of the west wing, the bank was graded steeply, and sodded. Steps which had been there were removed, and the granite reused as curbing at the end of Joy Place. The entrance to the west wing required that the old gate be moved (to where it now approaches the Lodge statue). New gates and new sections of wall to match the old were added along Beacon. The walk approaching the Hooker statue was made narrower, to match the walk to the west wing. The fountains on the lower terrace were removed at this time.

1920 Acts, Ch. 225: Another $30,000 was appropriated to complete the grounds, now under the direction of the Superintendent of Buildings.

THIRD PERIOD - 1889 to 1912

1889 The architectural firm of Brigham and Spofford designed the long extension at the rear of the State House. Granite blocks from the old reservoir were used in the foundation.

Land taking proceeded rapidly. The major purchase was the 37,480-square-foot reservoir lot, for which the Commonwealth paid the City of Boston $150,000. Suffolk Deeds, 1859:127.

Other land taken included 8 lots along the north side of Mt. Vernon Street, from Hancock to Temple Street, for which the Commonwealth paid a total of $259,120, 1865:606, 1915:209 (including a plan), 1915:597, and 1931:175. All the lots were about 118' deep and 32' wide.

At the same time, 8 lots along the east side of Temple Street were taken. These lots were narrower and about half as deep as those on Mt. Vernon. One was larger, but 7 of them were 23' wide and about 40' deep. The total cost to the Commonwealth for these lots was $175,750.

1892 Acts, Ch. 404. The State House construction commissioners were authorized to take more land east of the new extension to provide an open space. The land to be acquired included the lots along Bowdoin Street between Derne and Beacon Hill Place, backing up to the Temple Street lots taken three years previously. Ten lots and three narrow right-of-ways under what is now the legislators' parking lot were taken over a 2-year period, at a total cost of $363,500. Suffolk Deeds, 2086:118, 2086:397, 2098:65, 2124:507, 2131:139, 2131:140, 2133:141, 2133:31, 2197:329, and 2197:31.

1893 Acts, Ch. 129: The construction commissioners were authorized to sell all buildings which had been taken to defray the construction loan. They were also to have this land east of the extension laid out as a park, "with walks, grassplots, curbing and railing," and to provide a site for a new Beacon Hill monument. They could change street grades, close off streets, devise new approaches, and build retaining walls.

Acts, Ch. 450: The construction commission was authorized to take the narrow way called Beacon Hill Place to add to the open space.

1894 Acts, Ch. 532: Takings were authorized for more land for a park on the east side of the State House, this to include everything from the Way estate, the Commonwealth Building, which had been acquired in 1883, to Beacon Street, west of Bowdoin Street. This building could be used temporarily as

an office, but was to be demolished when the extension was completed. Other buildings were to be sold. Street grades could be changed as needed, and the whole to be laid out as an "ornamental park." Several parcels were taken over a two-year period, at a total cost of $329,000. Suffolk Deeds, 2212:622, 2241:17, 2263:13, 2350:467, and 2356:275.

Expenses for 1894 under Ch. 404, Acts of 1892, for making a park east of the State House amounted to $404,000 for grading, moving houses, etc. (Legislative Documents).

A photograph dated 1895 at the Boston Athenaeum shows the corner of Bowdoin and Derne Streets before construction of the park. The new Brigham extension is in the backround.

In an 1894 collection of speeches entitled Save the State House (Bostonian Society), supporting preservation of the Bulfinch building, one speaker worried that the park on the new and very long east side would give "undue prominence" to that facade. The speaker purported to be quoting Brigham, the architect, as saying that if he had known the park was to be built, he would have designed the building differently.

1895 Resolves, Ch. 68: The Sergeant-at-Arms was given charge of care and custody of the State House. He was authorized to spend $900 specifically for a gardener.

1896 Work on the northerly portion of the so-called East Park was completed. Expenses for 1895-96 totalled $38,735. This included design work by Charles Brigham which was carried out under the direction of Ernest W. Bowditch, landscape gardener and civil engineer. He was paid $4713 in 1896. Dennis O'Connell was the general contractor; he received $16,702 this year.

1897 Another $119,324 was spent on the East Park. The marble balustrade, much of which is still in place, was supplied by William Gray and Sons for $9383. O'Connell was paid $48,984 and Bowditch $5000. In addition, J.H. Bowditch, brother of Ernest, was paid $4500 for "laying out grounds and shrubbery."

Charles Brigham's plan for the State House grounds is in the Special Collections section of the State Library. No grades are shown on the blueprint, but the balustrades, steps to Derne Street, and the monument site are shown.

Ernest Bowditch's record plan is also in Special Collections. It shows the north half of the new park, and does indicate topography. The Commonwealth Building is in place just east of the Mt. Vernon Street through the park, around the monument site and out the Ashburton gate at Bowdoin Street.

An unidentified, undated drawing (GA27) shows the iron gate, fence, and balustrade where the park opened onto Bowdoin Street opposite Ashburton Place.

1898 The Bunker Hill Monument Association reproduced the 60" granite shaft of the Bulfinch monument and the eagle at the top. The original slate tablets were placed on it, and the monument placed in the center of the northern portion of the park, where it now is. The eagle is, according to some calcultations, at approximately the height of the original summit of Beacon Hill. (See Allen Chamberlain, Beacon Hill, 1925, and Bostonian Society photographs, negs. #5504 and 555.)

A bronze statue of Major General Charles Devens by Olin L. Warner was erected in East Park. Devens had served in the Civil War and was later U.S. Attorney General.

Park expenses for this year came to $18,486. The Norcross Brothers, who had done all the masonry and stonework, completed the steps and sidewalks. J.H. Bowditch was paid $1084 for "wintering plants" and other horticultural work. John L. Chapman was responsible for care of the grounds, plants, sod, and wire wickets to protect lawns and flower beds.

Acts, Ch. 395: A committee was appointed to consider lighting the dome and the grounds, and to provide piping (presumably new piping) for the fountains. The fountains, which had apparently been out of commission, were connected to the State House power plant.

1899 Resolves, Ch. 5: A survey and perspective plan of the State House grounds and setting were commissioned in order to enable the State House committee to consider limiting building heights in the vicinity. Senate Document #285 includes the committee's report and plans and drawings by Ernest W. Bowditch. One drawing purported to show how the State House would look if all buildings east to Bowdoin Street were removed and the park extended to Beacon Street. Another showed how the grounds and building could be improved and added to if the lands to the west were taken all the way to Joy Street.

The State House park committee, responsible for Senate Document #285, was empowered to extend the park to the east by taking land south of Mt. Vernon Street to Beacon. The committee was to clear the land, develop it as a park, and spend up to $2,000,000.

Acts, Ch. 457: Height limitations were imposed on the area west of the State House, along Hancock Avenue, Beacon Street to Joy, Joy to Myrtle, and along Myrtle to Hancock

Street and Avenue. New and altered buildings were not to exceed 70 feet.

1900 Acts, Ch. 382: Authorized removal of buildings east of the State House, grade changes, and other work to make a park.

A series of photos at the Bostonian Society taken between 1894 and 1900 record the completion of the extension ad the work on the grounds. The buildings east of the State House are shown prior to demolition.

An album of photographs in the State Library continue the visual record. These were taken by Robert Swan Thaxter around 1900. A Burill file photograph shows the park in a cleared but unfinished state. (Special Collections, oversized #23.)

1901 Acts, Ch. 525: Authorized closing Mt. Vernon Street from the archway to Beacon Street as it ran at the time. New approaches from Bowdoin and Beacon were allowed, as well as the widening and lowering of Bowdoin Street near Ashburton Place. A height limit of 100' was imposed along the west side of Bowdoin. On Beacon Street a height limit of 70' was set for new or altered buildings from Park Street east to the Clafin Building.

Ch. 525 also authorized land takings west of the State House along Mt. Vernon Street. Four lots were taken, at a total cost of $121,800. Suffolk deeds, 2775:81; includes a plan by Ernest Bowditch.

State Archives #4100-4100E: a group of plans for the grounds by Ernest Bowditch. Included are plans for lowering Bowdoin Street, and for lowering Mt. Vernon west of the arch. The major drawing is for the East Park, as it was soon developed. The gate at Ashburton Place was open, where a brick driveway entered the grounds. The drive passed near the arch, where Mt. Vernon Street ended. The drive extended to Beacon in a curve. All paving was to be brick or "Telford" finish. Presumably brick was used, as it can be observed in several holes in the present asphalt.

Two proposals were submitted to the Sergeant-at-arms for a "coal bunker" to hold up to 4000 tons of coal for heating. Charles Brigham submitted a lower estimate, but Ernest Bowditch was awarded the contract, for $58,685. (Special Collections, Burrill file.)

Excavation of the coal pocket began in August, 1901. 10,000 cubic yards of earth were removed from the area under Mt. Vernon Street east of the arch. A year later the great pit was covered over. Thaxter photographs record the process, as do 3 views in the Burrill file.

1902 Acts, Ch. 239: The east entrance changed to conform to the grade of the new park.

1903 The bronze equestrian statue of Major General Joseph Hooker, Civil War hero, was put into its present position. The figure is by Daniel Chester French, and the horse is by Edward C. Potter. A photo in the Thaxter album shows the statue in place and the area behind it, including the ground above the coal pocket, entirely graded and sodded.

1907 Acts, Ch. 545: More office space was needed already. A commission appointed to investigate plans for extending the State House to the east and west, and to consider regrading Beacon Street in front of the Bulfinch building. New construction was to harmonize with the Bulfinch facade.

1908 A statue of General Nathaniel P. Banks by Henry H. Kitson was placed in East Park, on the opposite side of the monument from the General Devens statue. Banks was a former Congressman and a Civil War hero.

1911 Resolves, Ch. 86: $3000 appropriated to repair pavement under the archway.

1912 Resolves, Ch. 1912 and Ch. 150: The State House commission was to investigate the possibility of building new offices along Mt. Vernon Street, west of Hancock Avenue. They were to have plans prepared for additions to the State House, and to consult with the State Art Commission regarding plans.

House Document #2335: The committee reported on the possibility of adding two wings. On the east, a new wing would allow for a nice park around the Hooker statue. Consulting architects Andrews, Chapman, and Sturgis opined that a new wing would improve the setting of the Beacon Hill monument, by forming a court around it, which would be "simpler and much more dignified than in the present arrangement." For an addition on the west, the committtee proposed more land takings.

Boston City Atlases for 1908 and 1912 show the layout of the State House grounds in this period, as do a number of photographs in various collections.

1922 Resolves, Ch. 45 and 22: The bronze statue of Anne Hutchinson, a brave fighter for religious freedom in the 17th century, was placed in front of the new west wing. The statue was carved by Cyrus E. Dallin.

1923 Resolves, Ch. 51: $900 appropriated to mount and place on the grounds a Spanish cannon, on loan from the Federal government. The cannon was placed at the west side of the grounds, near Joy Place.

1926 Resolves, Ch. 3: Tablet placed by the Derne Street steps commemorating the site of the English high school, which was built there in 1821, the first in Boston.

1928 Resolves, Ch. 38: $30,000 appropriated for the statue of the late Senator Henry Cabot Lodge, which was placed on the west lawn.

1930 A plan by Aspinwall and Lincoln, civil engineers, of the East Park: #G1930-1. Gives elevations, area of coal pocket, and planting. Above the wall on Derne Street were 4 maples, with unidentified shrubs on the bank. Parallel to Bowdoin Street, north of the Ashburton gate, were 7 elms. The gate was open. The sidewalks were "granolithic," and all the driveways were brick.

1934 House Doc. $ 195: Parking problems were increasing. Members were to have special privileges, but regulations prohibited public parking in the grounds. Legislators could park along the driveways in the park.

1938 HABS draawings were made of the Parris and Willard gate and steps of 1826 and 1833. 10 sheets, Fine Arts Library, B.P.L.

1945 During World War II the State House fence was sold, along with other fences, for metal scrap as a patriotic gesture. Postcards and photos of the 1930s show the iron fence in place. Post-war views show the privet hedge which replaced the fence.

Acts, Ch. 691: The art commission accepted $12,000 to provide a statue of Mary Dwyer, who was hanged in 1660 for refusing to abandon her rights of free speech and conscience. The statue was placed in front of the east wing.

1950 Acts, Ch. 584: Parking problems were increasing. Under a Resolve of the preceding year (Ch. 46), the State Department of Public Works was authorized as follows, in order to relieve congestion: narrow the sidewalks along Mt. Vernon and Bowdoin Streets, widen Derne Street, and consult the art commission with respect to planting trees along street

margins. Finally, the statues of Devens and Banks were to be moved to areas approved by the art commission, and the park was to be rebuilt as a parking lot for the maximum number of cars. A year later, under Ch. 413 of the Acts, the D.P.W. was further requested to construct an exit from the State House to Bowdoin Street, and to cut back the sidewalk along Beacon Street.

The Boston Edison vault was installed underground west of the west wing. It is covered by concrete.

1952 State D.P.W. drawings for alterations around the State House, #GA-1951-1, show work along Bowdoin Street at the end of the east wing, and 5 maples planted along the south facade of the east wing. Drawings #GA-1952-1 show new gate and iron fence along Bowdoin, opposite Ashburton Place. Also shown are revisions to the bottom steps along Derne Street.

Plan #L8282 in the City Engineer's office indicates that Beacon Street was widened by 10 feet. Most of the extra width came as a result of narrowing the sidewalk on the Common side of the street.

1953 Resolves, Ch. 28: The D.P.W. was to investigate and study the possibilities of using the abandoned coal pocket as a storage space or parking lot. Their report was filed as House Doc. #2740. They described the coal pocket as 75' by 112'. Its floor is about 27' below Mt. Vernon Street, and it is covered by 5' of fill. It has a small tunnel leading into the sub-basement. The engineers concluded that it was not big enough to use as a garage, since it could only hold about 50 cars. Their recommendation was to build a 4-story garage using coal pocket and adjoining parking lot, with an office building on top.
The D.P.W. plans are in the State Archives, #4766. The 8 blueprints include several schemes for entering and exiting.

1955 Drawings #G-1955-1 show the lawn irrigation system installed under the east and west lawns.

#G-1955-2: Plan by Joseph DiStefano, A.I.A., for new flagpoles on the front terrace, with 3' flagstone paths leading to them, near where the fountains once were.

1958 Construction of the underground archives building led to the last important alteration of the grounds. The present broad stone plaza between the west wing and the Bulfinch building replaces steps and walkways similar to those on the east side. Originally, there were grassed banks along the walk up to the buildings.

1962 Acts, Ch. 183: Parking rules more strictly defined, and fines imposed.

1967 State Archives #4820: Plan by Carleton Nickerson Goff for underground garage. This scheme involved moving the monument, and had a circular ramp from Mt. Vernon Street.

1970 National Register, nomination form: Gives present boundaries. Total area is 249,391 square feet. Description: From Bowdoin Street, 565' along Beacon. Thence northerly by Unitarian-Universalist property 130'; east on Joy Place 31', northerly 83' to Mt. Vernon; east on Mt. Vernon 115' to southeast corner of the intersection with Hancock 351' to Derne; east on Derne 362' to Bowdoin; then 531' southerly on Bowdoin to Beacon Street and the point of beginning.

SUMMARY OF LANDSCAPE STYLES

Period I (1795 - 1867)

Eighteenth century formal, with Greek Revival additions (granite wall and gate)

Period II (1868 - 1888)

Victorian municipal (beds of brilliantly colored annual flowers)

Period III (1889 - 1912)

Beaux-arts (design of East Park balustrades, steps, gate, and flower beds by Charles Brigham and Ernest W. Bowditch, 1890s)

Period IV (1913 to the Present)

Classic Revival (allees of trees and entrance plazas)

3.8 Footnotes

Footnotes: Section 3.2 Bulfinch Building and Demolished Additions

1. By 1787, the Old State House must have seemed very unsuitable. Situated in the center of the busiest street in town, it housed a merchant's exchange on the first floor, and Town and State governments and a court on the upper floors. The legislators were frequently interrupted by disturbances from the lower floor and the street (Sara B. Chase, Old Time New England, January-June 1978, Vol. LXVIII, Nos. 3-4, p. 34). In fact, the same committee appointed to consider building a new State House was "directed forthwith to report such measures as may be necessary to prevent the disturbances this court meets with in their deliberations, by the noise without doors" (House Journal, June 28, 1787, Vol. 8, p. 108).

2. House Journal, June 28, 1787, Vol. 8, p. 108.

3. Original Papers for Chapter 66, Resolves of 1794, passed February 15, 1795. Many of the committee reports and other documents relating to the building of a new State House are filed with the manuscript copy of this resolve in the Massachusetts Archives. This material and the House and Senate Journals for the years 1787 to 1795 are the chief sources used in piecing together the sequence proposals made and options considered for the new State House. Bulfinch's letter and estimate of 1787 are found in Third Series, Vol. 54, p. 16, No. 2969a in the Massachusetts Archives.

4. Report of the Committee of Both Houses Appointed to Consider whether a more convenient place for holding the General Court can be found." Read in the Senate, November 9, 1787; in the House, November 13, 1787. Original papers for Chapter 66, Resolves of 1794, passed February 16, 1795.

5. Harold Kirker, The Architecture of Charles Bulfinch (Cambridge: Harvard University Press, 1969), p. 102.

6. Watertown proposed to build the State House in that town in exchange for ownership of the Old State House. Since the Commonwealth owned only a half interest in the Old State House, the proposal was considered impossible to accept.

7. Senate Document No. 1505 of 1792. Unenacted legislation file, Massachusetts Archives.

8. Unidentified newspaper clipping filed with the original Papers for Chapter 66, Resolves of 1794, passed February 16, 1795.

9. This document contradicts the November 9, 1787 report of the committee of the General Court which states that Boston had already purchased the pasture. The 1792 report recommends acquisition of Wm. Foster's pasture "by Exchanging any other of the Town Property or in any way which shall appear . . . most conducive to the Town interest."

10. Walter Muir Whitehall, Boston: A Topographical History (Cambridge: Belknap Press of Harvard University Press, 1959), p. 59.

11. Original Papers for Chapter 66, Resolves of 1794, passed February 16, 1795. Letter from Josiah Thomas of Worcester to Thomas Martin Hinsley, Esq. of Boston, February 19, 1793.

12. Original Papers for Chapter 66, Resolves of 1794, passed February 16, 1795.

13. House Journal, Vol. 14, p. 62, 1794.

14. Ibid.

15. Letter from Charles Bulfinch to Perez Morton, January 21, 1795. Quoted in Charles A. Place, Charles Bulfinch, Architect and Citizen (Boston: Houghton Mifflin Company, 1925), pp. 87-88.

16. Original Papers for Chapter 66, Resolves of 1794, passed February 16, 1795.

17. Harold Kirker, The Architecture of Charles Bulfinch (Cambridge: Harvard University Press, 1969), p. 102.

18. Boston Town Records, 1784-1796, September 19, 1787. Thomas Dawes was voted a member of the committee to consider "whether a more convenient place for the holding of the General Court can be procured, in the Town."

19. Massachusetts Archives. Third Series, Vol. 54, p. 16, No. 2969a.

20. Ibid.

21. Letter from Charles Bulfinch to Perez Morton, January 21, 1795. Quoted in Charles A. Place, Charles Bulfinch, Architect and Citizen (Boston: Houghton Mifflin Company, 1925), pp. 87-88.

22. "A Philadelphian Looks at New England -- 1820." Old Time New England, Vol. L, No. 3, January-March, 1960, pp. 67-68.

23. Item D2 in the Phelps Stokes Collection, New York Public Library.

24. Letter from Charles Bulfinch (London, August 12th, 1785) to Dr. Thomas Bulfinch. Quoted in Ellen Susan Bulfinch, The Life and Letters of Charles Bulfinch (Boston: Houghton Mifflin Company, 1896), p. 44.

25. Buford Pickens, "Wyatt's Pantheon, the State House in Boston and a New View of Bulfinch." Journal of the Society of Architectural Historians, Vol. 29, No. 2 (May 1970).

26. John Summerson, Architecture in Britain 1530 to 1830 (New York: Penguin Books, 1953), p. 458.

27. Rev. Charles Place, Bulfinch's biographer in 1925, who was the first to identify Somerset House as the source of the State House design, cites another source: "An influence which bears particularly on the middle portion of the Boston State House is seen in 'Le Vignole Moderne' (Part 3, published in Paris, 1784) -- a book which Bulfinch bought and inscribed 'Charles Bulfinch, Paris 1786' -- showing a gold dome and some motives seen in the 'portico at Boston" [Rev. Charles Place, Charles Bulfinch, Architect and Citizen (Boston: Houghton Mifflin Company, 1925), p. 92].

28. Chapter 66, Resolves of 1794, passed February 16, 1795.

29. Columbian Centinel, January 10, 1798. This article is quoted in Sinclair Hitchings and Catherine Farlow, The Massachusetts State House (Boston: The John Hancock Mutual Life Insurance Company, 1974), pp. 99-102.

30. Ibid.

31. Columbian Centinel. Quoted in Leroy Thwing, "The Bulfinch State House," Old Time New England, Vol. XLII, No. 3, 1952, p. 63.

32. Fifteen white horses -- one for each state of the Union -- drew the corner stone up Beacon Hill on July 4, 1795. The procession to the site was followed by ceremonies at which Governor Samuel Adams gave a brief address and laid the cornerstone. Assisting him were Paul Revere, Grand Master of the Grand Lodge of Masons, and other members of the Lodge. Official guests included Indian Chiefs fitted out with "cloths and white hats' at the expense of the Commonwealth" [Hitchings and H. Farlow, The Massachusetts State House, p. 83].

33. I am indebted to Abbott Lowell Cummings for this suggestion.

34. See Richard B.K. McLanathan, "Charles Bulfinch and the Maine State House" (Harvard Doctoral Dissertation, 1951).

35. Agent's Account Book, Baker Library, p. 20, bill rendered by Charles Bulfinch February 19th, 1797; Vol. 311, Massachusetts Archives, Nos. 1439 and 1461.

36. Volumes 266, 267 and 311, Massachusetts Archives; Mss. 71, 1795-1800, S797, "Receipt Book of Agents for Building State House on Beacon Hill," Baker Library, Harvard University; Columbian Centinel, January 10, 1798.

37. Harley J. McKee, Introduction to Early American Masonry (National Trust for Historic Preservation, 1973), p. 44.

38. Volume 311, Massachusetts Archives, Item 1422.

39. Specifications for Mason's work on the Rogers addition, 1831. Burrill File, State Library Special Collections. Specifications indicate new foundation was to match that on the Bulfinch building.

40. American Architect and Building News, June 29, 1895, p. 129.

41. Letter from Jos. Dwight to Ephriam Williams, February 1, 1796, mss. in the Massachusetts Historical Society, Sedgwick III Collection.

42. Letter to the Editor, Boston Herald, from Ruth L.W. Draper, Auburndale, July 31, 1966. Copy in Burrill File, State Library, Special Collections.

43. Walter Greer, The Story of Terra Cotta (New York: Tobias A. Wright, 1920), as quoted in: Robert C. Mack, "Manufacturer and Use of Architectural Terra Cotta in the United States", Technology of Historic American Building, H. Ward Jandl, Editor (Washington: Foundation for Preservation Technology, 1983), p. 118.

44. Personal communication from Dr. Judith Selwyn.

45. Jack Quinan, "Daniel Raynerd Stucco Worker." Old Time New England, Vol. LXV, Nos. 3-4, Winter-Spring, 1975, Nos. 239-240, p. 6.

46. Jack Quinan, "Daniel Raynerd, Stucco Worker." Old Time New England, Vol. LXV, Nos. 3-4, Winter-Spring, 1975, pp. 2-3.

47. Ibid., p. 1.

48. Columbian Centinel, January 10, 1798, as quoted in Hitchings, p. 101.

49. Stoves were apparently installed seasonally in some of the other rooms, including the Council Chamber. See appendix for references to bills for this work. Some stoves were brought from the Old State House, for Herring and Blaney billed for taking down stoves there and "assisting up with them" to the new State House (267:172).

50. Richard B.K. McLanathan, "Bulfinch's Drawings for the Maine State House." Journal of the Society of Architectural Historians, Vol. XIV, May 1955, p. 16.

51. House Document No. 484 of 1869.

52. Richard B.K. McLanathan, Harvard Doctoral Dissertation, 1851.

53. House No. 4759 of 1798, Unenacted Legislation. Massachusetts Archives.

54. Letter from Charles A. Legg, Chief Engineer to Charles G. Davis, Sargeant-at-Arms, August 1, 1901. Copy in Burrill File, State Library, Special Collections.

55. Ellen Susan Bulfinch, Life and Letters of Charles Bulfinch (Boston: Houghton Mifflin Company, 1846), p. 172.

56. Chapters 144 and 145, Resolves of 1801, January session, passed March 11, 1802.

57. Chapter 53, Resolves of 1803, June 23, with statement of disbursements by the Agents, June 18, 1803.

58. Original Papers, Chapter VII, Resolves of 1831, passed June 15, 1831. Copy in Burrill File, State Library, Special Collections.

59. Eneas MacKenzie, A View of the United States, 1819, second edition (Newcastle on Tyne: MacKenzie and Dent, 1819), pp. 103-104; and Caleb H. Snow, M.D., History of Boston, second edition (Boston: Abel Bowen, 1828), p. 323.

60. Chapter CLXXI, Resolves of 1809, January session, passed March 5, 1810; and Chapter XCII, Resolves of 1837, passed April 19, 1837.

61. Chapter 39, Resolves of 1825, passed June 18, 1825; and report of the Secretary and Treasurer appointed by the Governor to superintend the painting, included in the Governor's message to the Legislature, February 10, 1826 (Chapter 56, Resolves of 1826).

62. Statement prepared by Ellen Mudge Burrill, submitted to the chairman of the Committee on State House and Libraries, January 1914. Burrill File, State Library, Special Collections.

63. Caleb H. Snow, M.D., History of Boston, second edition (Boston: Abel Bowen, 1828), p. 323.

64. Chapter LX, Resolves of 1812, passed June 24, 1812. Bills for the presumed work on the mantelpiece are not informative, listing only names of workmen and their charges. However, Charles Bulfinch was paid $30 by Jonathan Hunnewell of the committee appointed by the Legislature to oversee the alterations of 1812, so there is an outside chance that the mantelpiece design is Bulfinch's.

65. Chapter LVI, Resolves of 1838, passed April 10, 1838; and Senate Document No. 59 of 1853.

66. Chapter LX, Resolves of 1912, passed June 29, 1812.

67. Chapter VI, Resolves of 1833, passed February 28, 1833. Unnumbered roll of accounts.

68. Chapter XLI, Resolves of 1835, passed March 5, 1835.

69. Massachusetts Archives, Roll 109, Account 479 for 1835: John H. Wheeler's bill "for making Recesses from corner of Representatives chamber for Reporters" reads in part,

"Framing and putting up Circular Recesses, Making four strait
and two Circular
Doors; fitting in, hanging and putting on architraves
Bandmoulding & locks.
fitting and putting on plinths, cutting throug
front and casing round the same
Making four Desks and lining under same
& Entries."

The bill also includes $65.38 paid to Lon and Kinsley for stucco work, and another bill states that the four recesses were whitened by Alfred Randall in 1836 (1836, Roll 111, Account 82).

70. Everard M. Upjohn, Richard Upjohn, Architect and Churchman (New York: Columbia University Press, 1939), p. 219.

71. Massachusetts Archives. Third Series, Vol. 44, p. 10, No. 1824a, Plan of the Representatives' Hall, 1826, by Alexander Parris; and Abel Bowen, Picture of Boston, third edition (Boston: Otis, Broaders and Company, 1838), p. 60.

72. Massachusetts Archives, unenacted legislation, House No. 12851, 1833. Copy in Burrill File, State Library, Special Collections.

73. Chapter 57, Resolves of 1811, passed June 25, 1811.

74. Chapter 8, Resolves of 1847, passed February 24, 1847.

75. Chapter 107, Resolves of 1846, passed April 9, 1846.

76. Massachusetts Archives, unenacted legislation, House No. 12851, 1833. Copy in Burrill File, State Library, Special Collections.

77. Chapter 72, Resolves of 1846, passed March 27, 1846.

78. Governor Levi Lincoln's message of January 6, 1837, Chapter XXXI, Resolves of 1826.

79. Massachusetts Archives, unenacted legislation, Senate No. 8296 of 1826.

80. House Document No. 7, 1851, p. 14.

81. Chapter LXXXIII, Resolves of 1834, passed April 1, 1834.

82. Chapter 72, Resolves of 1844, passed March 12, 1844.

83. House Document No. 117 of 1849.

84. Ibid.

85. Ellen Mudge Burrill, The State House (Boston: Wright and Potter Printing Company, 1921), p. 124.

86. Chapter V, Resolves of 1827, passed June 12, 1827.

87. Alexander Parris to Eliot, October 30, 1834, in "Chelsea Hospital letterbook, as quoted in Edward Zimmer, Alexander Parris, Boston University Doctoral Dissertation, 1984.

88. Chapter V, Resolves of 1827, passed June 12, 1827.

89. Senate Document No. 59 of 1853.

90. Chapter LXXXVIII, Resolves of 1817, passed January 31, 1818.

91. Chapter LXXV, Resolves of 1831, passed March 10, 1831.

92. Ellen Mudge Burrill, The State House, seventh edition (Boston: Wright and Potter Printing Company, 1921), pp. 10-11. Copies of the masonry and carpentry specifications are in the Burrill File, State Library, Special Collections.

93. Mentioned in Senate Document No. 59 of 1853.

94. House Document No. 149 of 1850, p. 1.

95. Ibid.

96. Senate Document No. 59 of 1853, p. 6.

97. Ibid., p. 7.

98. House Document No. 192 of 1851; related document, House No. 149 of 1850.

99. House Document No. 149 of 1850, for example.

100. Chapter 99, Resolves of 1852, passed May 20, 1852.

101. Senate Document No. 59 of 1853. Towle and Foster later had to petition for payment for their services in making the plans (Report of testimony, etc. in matter of Towle and Foster, petitioners for pay for services as architects in making plans for enlargement of State House, 1854, Boston Public Library). They were finally paid $1,378 in 1855 (Chapter 12, Resolves of 1855, #145).

102. Senate Document No. 59 of 1853, pp. 17-18.

103. Chapter 191, Acts of 1853, passed April 27, 1853. Further appropriations were made in Chapter 79, Resolves of 1853, passed May 14, 1853; Chapter 452, Acts of 1854, passed April 29, 1854; Chapter 59, Resolves of 1855, passed May 15, 1855.

104. Patterns, molds and models for the cast and wrought iron were made by Samuel G. Tower, and wrought or cast by Smith and Felton and Denio and Roberts (Senate Document No. 76 of 1855, p. 11).

105. Senate Document No. 76 of 1854, p. 21.

106. Chapter 452, Acts of 1854, passed April 29, 1854.

107. Report of Commissioners Joseph R. Richards, S.K. Hutchinson and George M. Thatcher, January 1, 1856. Volume 2, Commissioners' Records, Massachusetts Archives (excerpts in the Burrill File).

108. Ibid.

109. Massachusetts Archives, Third Series, Volume 61, pp. 16-17, Nos. 2324, 2324a, 2324b.

110. Original papers, Chapter 37, Resolves of 1859, passed February 12, 1859.

111. James M. Stone, The Improvements of the State House, the Investigations thereof Investigated and Misrepresentations Exposed (Boston: A. Williams and Company, 1868), pp. 89-90.

112. Eugene S. Ferguson, "An Historical Sketch of Central Heating: 1800-1860," Building Early America, Charles E. Peterson, editor (Radnor, Pennsylvania: Chilton Book Company, 1976), pp. 172-173.

113. House Document No. 5, 1865.

114. Ibid., p. 4.

Footnotes: Section 3.3 Washburn Renovations

1. House Document No. 5 of 1865, p. 5.

2. Senate Document No. 98 of 1864.

3. House Document No. 270 of 1866.

4. James M. Stone, The Improvements of the State House, the Investigations thereof Investigated and Misrepresentations Exposed (Boston: A. Williams and Company, 1868), p. 5.

5. Senate Document No. 60 of 1867.

6. Ibid.

7. House Document No. 449 of 1867, p. 2.

8. William Washburn, Evidence in the Case of Washburn & Son, for Architectural Services on the State House (Boston: Rand, Avery, and Frye, 1871), p. 7.

9. Ibid., p. 8.

10. Ibid., pp. 9-10.

11. Ibid., p. 10.

12. Chapter 84, Resolves of 1867, passed June 1, 1867.

13. House Document No. 449 of 1867, pp. 2-3.

14. Previously, privies for the use of the legislators had been located on the colonnade (see Figure 21).

15. House Document No. 484 of 1869, Report of the Committee on Claims on the Alterations and Repairs upon the State House: Together with a photographic report of the testimony taken before said committee, pp. 206-207.

16. Chapter 84, Resolves of 1867, approved June 1, 1867.

17. James M. Stone, Sixty Falsehoods Exposed, Summary of Testimony Before Committee on Claims of the Massachusetts Legislature on the Alterations and Improvements of the State House (Boston: A. Williams and Company, 1869), p. 17.

18. Of the architects who performed major work on the State House, William Washburn is the least known today. Responsible for the design of a number of hotels and one Egyptian Revival house, Washburn began as a housewright in Boston in the 1830s,

assumed the title of architect some twenty years later, and had his last known commission in 1875. (See Rochelle S. Elstein, "William Washburn and the Egyptian Revival in Boston," Old Time New England, Vol. LXX, No. 257, 1980, pp. 63-82.) It was said that Washburn was an outspoken and contentious individual repeatedly involved in litigation and disputes; for example, with Gridley J.F. Bryant over the redesign of the steeple of the Park Street Church (personal communication from Jane Stahl). According to William Adams, masonry contractor for the State House:

> He [Washburn] was always finding fault. Sometimes he would come round with a whining sort of laugh and be all honey, and then be cursing and swearing and damning everybody up and down. That was his style; that was always his style; and that is his character wherever he has been.
>
> -- House Document No. 484 of 1869, p. 335.

The results of Washburn's work on the State House, however, earned the approbation of fellow architects and members of the government of the day.

19. House Document No. 484 of 1869, p. 206.

20. Ibid., p. 214.

21. Ibid., p. 207.

22. James M. Stone, The Improvements to the State House, the Investigations thereof Investigated and Misrepresentations Exposed (Boston: A. Williams and Company, 1868), p. 16.

23. Ibid., p. 12.

24. House Document No. 484 of 1869, p. 173.

25. Ibid., p. 357.

26. Ibid., p. 155.

27. Contract and Specifications for Plastering and Stucco Work, Appendix to House Document No. 484 of 1869, p. 593.

28. House Document No. 484 of 1869, p. 430.

29. Authorized by Chapter 38, Resolves of 1866.

30. House Document No. 484 of 1869, pp. 448, 470.

31. House Document No. 394 of 1868, pp. 3-4.

32. Ibid.

33. House Document No. 484 of 1869, p. 345.

34. Thomas A. Fox, "A Brief History of the Beacon Hill State House", American Architect and Building News, June 29, 1895, p. 129.

35. House Document No. 394 of 1868, p. 5.

36. House Document No. 44 of 1883, pp. 2-3.

37. James M. Stone, The Improvements of the State House, the Investigations thereof Investigated and Misrepresentations Exposed (Boston: A. Williams and Company, 1868), p. 78.

38. William Washburn, Evidence in the Case of Washburn & Son, for Architectural Services on the State House (Boston: Rand, Avery and Frye, 1871), p. 14; and House Document No. 394 of 1868, p. 7.

39. Chapter 76, Resolves of 1874, and Auditor's Report for 1874, p. 116 (copy in Burrill File).

40. Manual of the General Court (Boston: Wright and Potter, 1890), p. 522.

41. Chapter 70, Resolves of 1885, approved June 18, 1885.

Footnotes: Section 3.4 Brigham and Spofford Extension

1. Chapter 262, Acts of 1882, passed May 26, 1882; and Burrill, The State House, seventh edition, 1921, p. 13.

2. Chapter 87, Resolves of 1886, passed June 30, 1886.

3. Senate Document No. 6, 1887.

4. Chapter 349, Acts of 1888, passed May 17, 1888.

5. Chapter 92, Resolves of 1888, passed May 25, 1888.

6. American Architect and Building News, Vol. 24, No. 678, p. xxvii.

7. American Architect and Building News, Vol. 25, January 19, 1889, p. 31.

8. Governor's Special Message to the Senate and House of Representatives, Acts and Resolves of Massachusetts, 1888-1889, pp. 1305-1306.

9. American Architect and Building News, Vol. 43, illustration no. 953, March 31, 1894.

10. Illustration of McKay's competition design is in American Architect and Building News, Vol. 31, No. 790, p. 110.

11. Photographs of Brigham and Spofford's competition design are in the Photograph File in the Fine Arts Room at the Boston Public Library.

12. Chapter 38, Resolves of 1889, passed March 19, 1889.

13. Governor's Special Message to the Senate and House of Representatives, April 10, 1889, Acts and Resolves of Massachusetts, 1888-1889, p. 1307.

14. Ibid.

15. House Document No. 334 of 1889, pp. 3-4.

16. Clement Kelsey Fay, Save the State House, A Memorial to a Century of Freedom (Boston, 1894), p. 8.

17. Ibid., pp. 4-5.

18. Ibid., pp. 5-7.

19. Ibid., p. 6.

20. Chapter 394, Acts of 1889, passed June 4, 1889.

21. House Document No. 1250 of 1895, pp. 4-5.

22. Henry Withey, Biographical Dictionary of Armerican Architects (Deceased) (Los Angeles, Hennessey and Ingalls, Inc., 1970), p. 119.

23. These plans are in the State Library, Special Collections.

24. House Document No. 334 of 1889, p. 3.

25. Ibid., p. 2.

26. Minutes of the meetings of the State House Construction Commissioners, 1889-1899, Vols. 1-3. Massachusetts Archives.

27. Specifications for Excavation upon the Reservoir Lot, Construction Commissioners' Reports, 1889-1899, Vol. 1 (located after 7th meeting minutes). Massachusetts Archives.

28. Masonry Specifications, Construction Commissioners' Reports, 1889-1899, Vol. 1 (located after minutes of the 24th meeting). Massachusetts Archives.

29. Granite Work Specifications, Construction Commissioners' Reports, 1889-1899, vol. 1 (located after minutes of the 19th meeting). Massachusetts Archives.

30. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

31. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30. This article also lists other Boston structures recently constructed with Vermont marble: the Adams House, the Parker House addition, and the Advertiser and Rogers' facades; and Contract for Marble Ashlar Work, April 30, 1890, Construction Commissioners' Reports, 1889-1899, Vol. 1 (located after minutes of the 40th meeting). Massachusetts Archives.

32. Masonry Specifications, Construction Commissioners' Reports, 1889-1899, Vol. 1 (located after 17th meeting minutes). Massachusetts Archives.

33. Contract for Cut Marble Work, Construction Commissioners' Reports, 1889-1899, Vol. 1 (located after minutes of the 40th meeting). Massachusetts Archives.

34. House Document No. 5 of 1892.

35. Painting and Glazing Contract, Construction Commissioners' Reports, 1889-1899, Vol. 3, p. 51. Massachusetts Archives.

36. Joseph Murphy, President of the Irving and Casson, A.H. Davenport Company, made the attribution.

37. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

38. Carpenter's Specifications, Construction Commissioners' Reports, 1889-1899, Vol. 3, p. 5. Massachusetts Archives.

39. Painting and Glazing Specifications, Construction Commissioners' Reports, 1889-1899, Vol. 3. Massachusetts Archives.

40. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

41. Minutes of the 173rd meeting, January 22, 1894, and minutes of the 203rd meeting, July 26, 1894, Construction Commissioners' Reports, 1889-1899, Vol. 1. Massachusetts Archives.

42. Specifications for Interior Ironwork, Construction Commissioners' Reports, 1889-1899, Vol. 1. Massachusetts Archives.

43. Specifications for Interior Marblework, Construction Commissioners' Reports, 1889-1899, Vol. 3, p. 154. Massachusetts Archives.

44. Ibid.

45. House Document No. 115 of 1898, and Specifications for Marble Work in Memorial Hall, Construction Commissioners' Reports, 1889-1899, Vol. 3, p. 329. Massachusetts Archives.

46. Specifications for Mosaic Work, Construction Commissioners' Reports, 1889-1899, Vol. 3, p. 223. Massachusetts Archives.

47. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

48. Minutes of the 224th meeting, and 225th meeting, Construction Commissioners' Reports, 1889-1899, Vol. 2. Massachusetts Archives.

49. Minutes of the 269th meeting, December 13, 1897, Construction Commissioners' Reports, 1889-1899, Vol. 3. Massachusetts Archives.

50. Chapter 325, Acts of 1893, passed May 5, 1893.

51. Specifications for Metal Furniture, Construction Commissioners' Reports, 1889-1899, Vol. 3, p. 250. Massachusetts Archives.

52. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

53. Charles S. Damrell, A Half Century of Boston's Building (Boston: Louis P. Haley, 1895), p. 93.

54. Minutes of the 203rd meeting, July 26, 1894, Construction Commissioners' Reports, 1889-1899, Vol. 1. Massachusetts Archives.

55. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

56. Ellen Mudge Burrill, The State House, seventh edition (Boston: Wright and Potter, printers, 1921), p. 83. The window was authorized under Chapter 31, Resolves of 1899.

57. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

58. Ibid.

59. Minutes of the 208th meeting, Construction Commissioners' Reports, 1889-1899, Vol. 1. Massachusetts Archives.

60. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30. 61. Ibid.

62. Ibid.

63. Ibid.

64. Boston Journal, November 22, 1896, p. 8.

65. Minutes of the 314th meeting, Construction Commissioners' Reports, 1889-1899, Vol. 3. Massachusetts Archives.

66. Minutes of the 397th meeting, October 24, 1898, Construction Commissioners' Reports, 1889-1899, Vol. 2. Massachusetts Archives.

67. Minutes of the 320th meeting, November , 1896, Construction Commissioners' Reports, 1889-1899, Vol. 2. Massachusetts Archives.

68. House Document No. 115 of 1898.

69. Ibid.

70. Minutes of the 217th meeting, October 29, 1894, Construction Commissioners' Reports, 1889-1899, Vol. 2. Massachusetts Archives.

71. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

72. Minutes of the 217th meeting, October 29, 1894, Construction Commissioners' Reports, 1889-1899, Vol. 2. Massachusetts Archives.

73. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

74. Personal communication from Edward O'Brien, former Court Officer of the House of Representatives.

75. Minutes of the 207th meeting, Construction Commissioners' Reports, 1889-1899, Vol. 1. Massachusetts Archives.

76. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

77. Senate Document No. 5 of 1897.

78. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30.

79. "The State House Library," Boston Sunday Post, December 16, 1894.

80. "Beauties and Oddities of the New State House," Boston Sunday Globe, July 22, 1894, p. 25.

81. Boston Sunday Post, December 16, 1894, op. cit.

82. Minutes of the 173rd meeting, January 22, 1894, Construction Commissioners' Reports, 1889-1899, Vol. 1. Massachusetts Archives.

83. Minutes of the 197th meeting, June 27, 1894, Construction Commissioners' Reports, 1889-1899, Vol. 1. Massachusetts Archives.

84. Boston Sunday Post, December 16, 1894, op. cit.

85. Charles S. Damrell, A Half Century of Boston's Building, op. cit., p. 93.

86. "Beauties and Oddities of the New State House," Boston Sunday Globe, July 22, 1894, p. 25.

87. Specifications for Senate Staircase Hall, Construction Commissioners' Reports, 1889-1899, Vol. 3, p. 314. Massachusetts Archives.

88. Ellen Mudge Burrill, The State House, seventh edition, 1921, op. cit., p. 57.

89. House Document No. 7 of 1903.

90. Ellen Mudge Burrill, The State House, seventh edition, 1921, op. cit., p. 79.

91. House Document No. 115 of 1898. See Specifications for Marble Work in Memorial Hall, Construction Commissioners' Reports, 1889-1899, Vol. 3, p. 329. Massachusetts Archives.

92. Ellen Mudge Burrill, The State House, seventh edition, 1921, op. cit., pp. 79-80.

93. House Document No. 77 of 1900, p. 1.

94. "The New State House," Boston Sunday Herald, December 30, 1894, p. 30. 95. Ibid.

96. Ibid.

97. Boston Sunday Globe, July 22, 1894, op. cit.

Footnotes: Section 3.5 Cummings/Everett Restoration

1. House Document No. 6 of 1893, p. 8.

2. House Document No. 6 of 1894, p. 10.

3. House Document No. 1009 of 1893, and House Document No. 756 of 1894.

4. House Document No. 756 of 1894, p. 2.

5. Original Papers, Chapter 531, Acts of 1896, passed June 9, 1896. Many petitions, although not all referenced in the text, are among the papers filed with this act.

6. For example, Thomas A. Fox, "A Brief History of the Beacon Hill State House," American Architect and Building News, June 29, 1895, pp. 127-129.

7. Clement Kelsey Fay, Save the State House, A Memorial to a Century of Freedom (Boston, 1894).

8. Address by Alfred Seelye Roe, Centennial of the Bulfinch State House (Boston: Wright and Potter Printing Company, 1898), pp. 29-30.

9. Chapter 31, Resolves of 1895, approved March 14, 1895.

10. Senate Document No. 275 of 1895, p. 1.

11. Ibid.

12. Ibid., p. 2.

13. Ibid.

14. Ibid., p. 2-4.

15. Ibid, p. 5.

16. Senate Document No. 3 of 1896, p. 6.

17. Ibid., p. 7.

18. Transcript of Hearing to consider the petition for the security and preservation of the so called Bulfinch portion of the State House before the Committee on the State House, March 16, 1896. Massachusetts Archives.

19. Ibid., Part 1, p. 34.

20. Clement Kelsey Fay, Save the State House, A Memorial to a Century of Freedom (Boston, 1894), p. 9.

21. Transcript of Hearings to consider the petition for the security and preservation of the so called Bulfinch portion of the State House before the Committee on the State House, March 16, 1896, pp. 44-45. Massachusetts Archives.

22. Chapter 531, Acts of 1896, approved June 9, 1896.

23. Chapter 531, Acts of 1896, approved June 9, 1896.

24. Sarah Lowell Blake and Lucy Lowell, Report on the Fireproof Reconstruction of the Bulfinch State House, December 20, 1897, p. 1. Boston Public Library.

25. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, pp. 378-534. Massachusetts Archives.

26. Ibid., p. 389; and Minutes of the 334th meeting, March 2, 1897, Construction Commissioners' Reports 1889-1899, Vol. 3. Massachusetts Archives.

27. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, p. 390. Massachusetts Archives.

28. Ibid., p. 391.

29. Ibid., p. 389.

30. Ibid., p. 390.

31. Minutes of the 323rd meeting, December 18, 1896, Construction Commissioners' Reports 1889-1899, Vol. 2. Massachusetts Archives.

32. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, p. 412. Massachusetts Archives.

33. Ibid.

34. Ibid., p. 412.

35. Ibid., p. 531.

36. Ibid., pp. 410-413. See these pages for all work on exterior wood trim described in the preceding paragraph.

37. Specifications for the work on Terrace, Construction Commissioners' Reports 1889-1899, Vol. 3, pp. 535-536. Massachusetts Archives.

38. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, p. 390. Massachusetts Archives.

39. Ibid., p. 410.

40. Iron and Steel Specifications are included in the Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, pp. 403-409. Massachusetts Archives.

41. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, p. 395. Massachusetts Archives.

42. Ibid., p. 420.

43. Ibid., p. 393.

44. The black and white marble floor of Doric Hall, installed in 1867, was removed and reused in the engine room in the sub-basement where it may still be seen.

45. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, p. 417. Massachusetts Archives.

46. See plans by Arthur Everett in the D.C.P.O. Collection.

47. Ellen Mudge Burrill, The State House (Boston: Wright and Potter Printing Company, 1921), p. 124.

48. Minutes of the 361st meeting, October 29, 1897, Construction Commissioners' Reports 1889-1899, Vol. 2. Massachusetts Archives.

49. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, p. 499. Massachusetts Archives.

50. Ibid., p. 380.

51. Ibid.

52. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, p. 409. Massachusetts Archives.

53. Ibid., p. 380.

54. Ellen Mudge Burrill, The State House (Boston: Wright and Potter Printing Company, 1921), p. 124.

55. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, p. 415. Massachusetts Archives.

56. Ibid., p. 395.

57. Ibid., p. 413.

58. Ibid., p. 404.

59. Ibid., p. 502, and Minutes of the 361st meeting, October 29, 1897, Construction Commissioners' Reports 1889-1899, Vol. 2. Massachusetts Archives.

60. Ibid.

61. Specifications for the Bulfinch Front, Construction Commissioners' Reports 1889-1899, Vol. 3, p. 413. Massachusetts Archives.

62. Ibid., p. 404.

63. Ibid., p. 407.

64. Ibid., p. 415.

65. Ibid., p. 404.

66. Ibid.

67. Ibid., pp. 420-421.

68. Sarah Lowell Blake and Lucy Lowell, Report on the Fireproof Reconstruction of the Bulfinch State House, December 20, 1897, p. 2. Boston Public Library.

69. Chapter 239, Acts of 1902, approved March 27, 1902.

70. Robert Thaxter Swan, "The work of improving the property of the Commonwealth on Mt. Vernon, Beacon and Bowdoin Streets, 1900-1903" (Boston, 1903). Scrapbook of photographs in the State Library.

71. Ellen Mudge Burrill, The State House (Boston: Wright and Potter Printing Company, 1921), p. 124.

Footnotes: Section 3.6 Chapman, Sturgis and Andrews East and West Wings

1. See "Report of the State House Commission to the Massachusetts Legislature on Additions to the State House, January 1, 1913" (Boston: Wright and Potter Printing Company, 1913), pp. 4-5 for summary of proposed solutions.

2. Chapter 830, Acts of 1913, approved June 18, 1913.

3. "Report of the State House Commission to the Massachusetts Legislature on Additions to the State House, January 1, 1913" (Boston: Wright and Potter Printing Company, 1913), p. 8.

4. "State House Enlargement," Springfield Republican, May 24, 1914.

5. "Report of the State House Commission to the Massachusetts Legislature on Additions to the State House, January 1, 1913" (Boston: Wright and Potter Printing Company, 1913), p. 16.

6. Ibid.

7. "Plans on State House Favored by Council," Boston Christian Science Monitor, December 17, 1913.

8. "Bulfinch Front is Pictured in Brick or Stone," Boston Christian Science Monitor, March 19, 1914.

9. See Ellen Mudge Burrill, The State House (Boston: Wright and Potter Printing Company, 1921), pp. 17-20 for facts pertaining to Commission membership and legislative acts relating to the various phases of the work.

10. Chapter 541, Acts of 1914, approved May 20, 1914.

11. Pittsfield Eagle, May 28, 1914, excerpt found in Clippings Book, State Library Special Collections.

12. "Comfort's Bill may be $32,000," Boston Christian Science Monitor, November 19, 1914; and "Expert Comfort Action Deferred," Boston Advertiser, December 11, 1914.

13. Paul J. Weber, "Views of the State House, taken July 8, 1914 to September 14, 1916 by Weber, showing the construction of the East and West Wings," Vol. 1-3 (Boston, 1914-1916).

14. "Specifications for the East Wing and Lateral Portion of the West Wing" (Boston, 1913), p. 51.

15. Ibid., p. 60.

16. Ibid., p. 59.

17. "Specifications for the East Wing and Lateral Portion of the West Wing" (Boston, 1913) and "Specifications for the Completion of the West Wing" (Boston, 1915). Massachusetts Archives.

18. "Specifications for the East Wing and Lateral Portion of the West Wing" (Boston, 1913), p. 58.

19. Ibid., p. 56.

20. Letter from John S. Nolan, State Superintendent of Buildings, to Hall Nichols, Director of Building Construction, September 11, 1958; and letter from John S. Nolan to Major George J. Cronin, Purchasing Agent, March 2, 1956.

21. Letter from Nolan to Nichols, September 11, 1958, op. cit.

22. Chapter 350, Acts of 1919, Part II, Sections 17 and 18.

23. "Annual Report of the Superintendent of Buildings for the Year ending November 30, 1920" (Boston: Wright and Potter Printing Company, 1921), p. 31.

24. Ibid., p. 32; and Chapter 513, Acts of 1920, approved May 25, 1920.

25. Chapter 51, Resolves of 1923, approved May 12, 1923.

26. Specifications for sandblasting. Excerpt in the Burrill file, State Library Special Collections.

27. A. Corbett, "State House Blooms like Spring Tulip," Boston Globe, May 16, 1928. Studies in Local History Scrapbook at the Boston Athenaeum.

28. "Beauty in New Light Fixtures," Boston Herald, September 16, 1929. Copy in the Burrill file, State Library Special Collections.

29. Plans for the Facilities for housing Archives, State House, Boston, Project G-57-2, January 11, 1960; Maurice A. Reidy, engineer; Perry, Shaw, Hepburn and Dean, consulting architects. State Library Special Collections.

30. Newspaper clipping, listed in State Library catalogue under "State House Cleaning and Sandblasting Project, 1966."

The State House
Historic Structure Report

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Chapter 4
Existing Conditions

4.1 Methodology

In examining existing conditions, methodology was two-fold. First, field observation and examination of past reports, technical specifications, and drawings were undertaken. This led to the compilation of data and development of report text. Secondly, testing and analysis was undertaken. This method is more intrusive and sought to date and identify certain elements of the often-changed Bulfinch building, and to identify original finishes in selected areas of the Bulfinch building and the Brigham annex. For the purposes of this chapter, observation and research reports are presented first. These focus specifically on masonry, landscape, and interior conditions, with a summary report of existing conditions drawn from visits to over 400 rooms. Rooms were inventoried and existing conditions were tallied on data sheets, submitted in the Team File. The report on interior conditions identifies typical finishes and problems, and helped establish the extent of restoration required to return rooms of primary and secondary significance to their original, or appropriate, appearance.

Results of testing and analysis are presented as Section 4.5, first for the Bulfinch building, then for the Brigham extension and wings. Their methodology is discussed within Section 4.5. Finally, a summary structural description, based on field observation and examination of archival drawings is presented. With Chapter 4, the report ends its reportage and documentation. The challenges of Chapters 5 and 6 are to synthesize the data presented, and draw value judgments about the building, laying a foundation for a preservation.

4.2 Architectural Description

Exterior Appearance

Introduction

The Massachusetts State House sits atop the remnants of Beacon Hill facing south over Beacon Street and the 17th century Boston Common. A broad allee, terminating in the St. Gaudens designed Shaw Memorial provides a grand approach through the Common from Boston's central retail and business district. To the north and west the State House is embraced by Beacon Hill, a status residential neighborhood developed with brick townhouses and apartment buildings throughout the 19th century, and designated as a local architectural conservation district in 1955 and as a National Historic Landmark District in 1966. Boston's Government Center, dating from the 1960's stands to the east. The State House itself received individual designation in 1966 as both a National and State Historic Landmark in recognition of the premier role it has played in the historical and architectural development of the Commonwealth.

As it exists in 1985, the Massachusetts State House represents three major building efforts accomplished between 1795 and 1917. The State House's oldest portion, and still its focal point, is the 1795-98 section which is a nationally significant example of Federal period civic architecture designed by Boston's most prominent architect of that period, Charles Bulfinch. Built on a simple rectangular plan, this two story red brick building received three rear additions between 1829-1855, to help alleviate overcrowding. All were designed by noted architects of the day: Alexander Parris (1829), Isaiah Rogers (1831), and Gridley J. F. Bryant (1855). In 1889-1900, the current three story, yellow brick with marble trim, rear extension was erected on the site of the former City Reservoir. Designed by architect Charles Brigham, this massive addition replaced the earlier ones while quintupling the size of the State House. The third major addition of 1914-17 consisted of lateral east and west wings executed in white Vermont marble and designed by architects William Chapman, R. Clipton Sturgis and Robert D. Andrews. Despite the varied dates and materials of construction of the State House's three major components, the whole is unified by repetition of several key design elements taken from the Bulfinch building, as originally constructed and modified during the 19th century. These include its rusticated basement, belt courses separating stories, use of the Corinthian order, and perhaps most importantly, a uniform height defined by a continuous entablature of three part architrave, wide frieze and dentilated modillion cornice with balustrade.

The grounds of the State House are defined by an ashlar granite retaining wall. On the Beacon Street front, the retaining wall varies in height from two to three courses topped with a narrower band of coping. The wall is interrupted by four entrances all defined by granite piers of varying heights. The easternmost entrance leads to the State House information center in the 1914 East wing. The next gate leads to the main entries in the Bulfinch building and is elaborated with pilastered piers, a decorative cast iron gate and an iron archway holding a lantern. The gate was designed by Alexander Parris in 1826, while the cast iron arch was designed by Solomon Willard within a few years. The next entrance leads to the Archives and the 1914 west wing while the westernmost entrance, abutting the Unitarian-Universalist Association Building leads only to the State House lawn. A cast iron picket fence which originally ran atop the retaining wall was removed in 1945.

Bulfinch Building (1795-1798)

The Bulfinch Building, approached by four runs of granite steps (8, 8, 7, 7), is a two story red brick building rising from a rusticated granite foundation to a low pitched hip roof surmounted by a pedimented attic story and a hemispherical dome with glazed lantern. A projecting frontispiece with an arcaded first story and columned second story of the Corinthian order, adds architectural interest and order to the facade. A contemporary 1798 account described the exterior thus:

> The New State-House is an oblong building, 173 feet front, and 61 deep, it consists externally of a basement story, 20 feet high, and a principal story 30 feet. Thus in the center of the front is crowned with an Attic 60 feet wide, 20 feet high, which is covered with a pediment: Immediately above this rises a dome 50 feet diameter and 30 feet high, the whole terminated with an elegant circular lanthorn, supporting a gilt pine cone, an emblem of one of our principal staples.
>
> The basement story is finished plain on the wings with square windows. The centre is 94 feet in length, and formed of arches which project 14 feet; they form a covered walk below, and support a Colonade of Corinthian columns of the same extent above. The outside walls are of large patent bricks, with white marble fascias, imposts and key stones.
>
> --Columbian Centinel, 1/10/1798.

The building's foundation is faced with smooth ashlar granite, five courses high, under the frontispiece where it carries a granite balustrade with panelled posts. It is pierced by two

rectangular windows containing 3/3 sash on either side of the central stair and by a single window on each of the lateral faces. Beneath the main block of the building, the foundation is rusticated to impart a bold texture and sense of solidity. On the front face, on either side of the frontispiece, it is lit by three segmental arched windows containing 8/8 sash, corresponding in their placement to the fenestration of the upper stories; the lateral faces, which are increasingly exposed as the ground slopes back toward the 1914 wings, have three slightly smaller segmental arched windows to the east and five to the west.

The two principal stories are faced with red brick laid up in Flemish bond and are trimmed with marble belt courses between the first and second stories and at the second story impost level as well as with a full wooden entablature consisting of three part architrave, wide frieze, dentilated modillion cornice and urn balustrade. On the south facade, three windows flank the frontispiece at each story. First story windows are set in flush rectangular surrounds and contain 10/20/10 triple hung sash. Second story windows, which are arched and set in recessed surrounds, are framed by pilasters rising from ornamental blank balustrades beneath the sills. The larger central windows have a modified Palladian design formed by use of double framing pilasters. All contain 20/15 double hung sash and fanlights with simple radiating muntins.

The east and west lateral elevations of the Bulfinch building are treated differently, reflecting interior spatial arrangements, and disrupting the overall symmetry of its design somewhat. The east elevation is three bays wide with rectangular windows at its first story and recessed arched windows at the second, set between wide corner pilasters. The west elevation is five bays wide and contains a third attic story of small squared windows with 15 pane sash which open inward from the bottom. First story windows are identical to those of the facade and have been altered only by the introduction of air conditioning units into the upper portion of the two south central windows. Second story windows are simpler than those of the facade, not being set in recessed surrounds and lacking pilastered frames except for those in the outer two bays; an air conditioner has been placed in the lower portion of the north central window.

The seven bay frontispiece consists of an arcaded first story with marble impost blocks and keystones as well as patera in the two wider outermost bays. Behind the openings of the arcade are a central entry flanked by paired windows and secondary entries in the outer bays. The main entry, approached by four granite steps, has a panelled double leaf door headed by a delicate fanlight. The flanking windows are arched and contain 15/15 double hung sash; small rectangular windows with fixed 8 pane sash are located below. The

secondary entries contain glazed and panelled double leaf doors headed by transoms and fanlights. The second story of the frontispiece is a colonnade of fluted Corinthian columns, paired in the outer two bays and corresponding in location to the piers of the arcade below. Behind the columns are windows in the five central bays and entries in the two outer bays. Above these openings are oval windows in the three central bays and rectangular windows with 10 pane sash in the four outer bays. The windows, which hold 15/20 double hung sash have marble sills and stepped lintels. The entries have glazed and panelled double leaf doors headed by panelled transoms, fanlights and projecting architraves supported on carved ancones.

The pedimented attic story is divided into five bays by Ionic brick pilasters painted white to match the columns below. Oculi in squared brick frames are located in the outer bays, squared windows with crossetted frames and 15 pane sash occupy the inner bays while a panelled door with a crossetted frame occupies the central bay. The pediment has a raking bracketed cornice and a blank field. Surmounting the attic is the State House's well known golden dome which sits on a bracketed cylindrical drum pierced by louvered round arched openings with aedicular frames. Above the hemispherical dome is a low balustrade encircling a delicately detailed lantern with four round arched windows separated by paired columns which rise through a modillion cornice as finials. The whole composition is topped by a gilt pine cone as "an emblem of one of our principal staples" (Columbian Centinel 1/10/1798).

Brigham Rear Extension (1889-1900)

Architects Charles Brigham and John Spofford won a competition to enlarge the State House in 1888. Their design, as modified by state officials, consisted of a long, yellow brick rear extension, which carefully reflected many elements of the Bulfinch building, including its then yellow color. To reduce the bulk of this somewhat overwhelming addition, the architects articulated the east and west elevations with slight changes in plane and major changes in detail. Seen without the later 1914 wings, (Ilust. #24), one realizes that the Bulfinch building itself balanced the Derne Street end with its imitative Corinthian colonnade, that the bow of the Representatives Chamber on the west and the pedimented section on the east formed the center points of their respective elevations, and that the major entry on the east elevation was balanced by the Mt. Vernon Street underpass.

The extension is three stories in height with the first story faced in marble to correspond to the basement of the Bulfinch building. Basement and sub-basement space, faced with rusticated granite, is gained due to the downward slope of the site. Consistent design elements include a secondary

dentillated cornice above the simple, rectangular first story windows, stringcourses at the second story sill and third story impost levels, and a primary cornice reflecting that of the Bulfinch building. Also consistent is the use of recessed arched windows and of the Corinthian order for pilasters and columns at the third story.

The west elevation (Hancock Street), described from south to north, begins with a single bay connecting it to the West wing (two additional bays were obscured when this lateral wing was constructed in 1917). This bay contains paired rectangular windows with 1/1 sash and a transom at the first story, an arched window with a coffered soffit, pilastered limestone surround, projecting cap and 2/2 sash at the second and a recessed arched window with coffered soffit balustraded sill, pilasters and 1/1 sash at the third story. Directly abutting this bay is the Mount Vernon St. overpass which consists of a triple arch with rusticated surrounds at the first story; the larger central arch provides for vehicular traffic while the side arches accomodate pedestrians. The second story contains five windows with 2/2 sash, rectangular transoms and limestone surrounds consisting of molded architraves headed by friezes and projecting caps with egg and dart molding. The third story is recessed behind a colonnade of fluted Corinthian columns, paired in the outer bays and spaced so as to reflect the fenestration below. Behind the columns are pilasters separating five windows with crosseted limestone surrounds, 1/1 sash and rectangular transoms. Above these openings are five squared windows with crosseted surrounds and single pane sash. This third story design is directly inspired by the second story of the Bulfinch frontispiece and is repeated elsewhere on the rear ell.

The overpass is followed by the bowed cross arm containing the House of Representatives chamber. This element projects by a single bay on each side. Fenestration of these two projecting bays is identical to that of the ell's first bay with the exception of the arched second story windows which are elaborated by foliate carving on their pilasters as well as in the spandrels of their surrounds, and by the addition of a bead and reel molding in the extrados of the arch, and an egg and dart molding beneath the cap. Third story windows are framed by paired pilasters. The five bay bow repeats this fenestration pattern exactly. The elaboration of the third story with paired pilasters reflects the hierarchical importance of the House chamber within. The ell's rusticated basement begins at the bow even though it is still below ground level and must be established by a granite retaining wall carrying a wrought iron picket fence similar in design to the one which once topped the retaining wall along Beacon Street. This wall continues down to and a short way along Derne St. Paired windows in the basement correspond to the fenestration above.

Following the bow is a five bay colonnaded section whose second and third stories are identical to those of the Mount Vernon Street overpass. Its first story contains conventional windows with 1/1 sash and transoms while the basement is lit by smaller squared windows. Proceeding northward, there are two identical three bay sections, each of which projects slightly and each of which rises from the now exposed sub-basement. They contain narrow paired windows with 1/1 sash at the basement and sub-basement levels, paired windows with 1/1 sash and single transoms at the first story, arched windows with molded architraves and projecting caps at the second story and recessed arched windows framed by pilasters and a half rising from balustrated sills at the third story.

The rear or north elevation (Derne Street) consists of a seven bay central projecting pavilion framed by three bay end sections. Because the basement and sub-basement are totally exposed here, the retaining wall with its iron fence is phased out, and the building's full five stories are revealed. The end bays contain narrow paired windows with 1/1 sash at the basement levels, paired windows with 1/1 sash and single transoms at the first story, and arched windows with pilastered surrounds, projecting caps and 2/2 sash at the second story. Typically the third story is the most elaborate, consisting of the usual recessed arched windows, but here the design is further enriched by enlarging the central arch and inserting a Palladian window. The central pavilion projects by one bay, whose side elevations contain rectangular window openings. Its sub- basement contains a wide round arched service entrance for vehicular traffic, flanked by blank rectangular window openings and double-leaf entries, while the basement and first stories contain windows with 2/2 sash and transoms. The second and third stories draw on the Bulfinch frontispiece for inspiration. The second story contains recessed arched windows with 2/2 sash, while the third story consists of a colonnade of fluted Corinthian columns, paired in the outer two bays and spaced so as to reflect the fenestration below. Behind the colonnade are paired windows set in recessed arches and separated by pilasters. Rising above the colonnade is a pediment with raking modillion cornice.

The east elevation (Bowdoin Street) is identical to the west elevation in its two northernmost bays and in the Mount Vernon Street overpass. It differs in its treatment of the cross arm and of the central bay adjoining it to the north. Here the five bay cross arm is not bowed but is treated as a pedimented temple front. Nevertheless, fenestration is identical to that of the western bow and even the paired pilasters are continued at the third story where they support a pediment with raking modillion cornice. The east elevation's central bay is also similar to that of the west elevation, following it exactly at the two upper stories. The basement story however, is masked by a balustraded landing, gained by lateral curved staircases

with elaborate bronze lanterns rising from posts at the ground level. Triple entries with electric double leaf doors are located beneath the landing. The landing itself provides access to a triple arched entry porch defined by Ionic pilasters carrying a fragment of an entablature and flanked by single arched windows. The triple arches lead to a single, double-leaf door with fanlight which is flanked by arched windows.

East and West Lateral Wings (1914-1917)

Architects Robert D. Andrews, William Chapman and R. Clipston Sturgis were selected to enlarge the State House with east and west lateral wings in 1913. Their monolithic, Classical Revival style design, executed in white Vermont marble with a granite foundation, draws much of its inspiration from the original Bulfinch building as did the earlier Brigham extension. Here, however, the presence of common details is far less apparent due to the flat planar quality of the design and because it is executed in a single material (excepting the foundation). The four story wings which are symmetrical in plan and elevation consist of seven bay connectors terminating in three bay end pavilions which project by six bays on a north-south axis. Consistent design elements include a rusticated first story, a stringcourse between the second and third stories, use of the Corinthian order at the third and attic stories, and continuation of the Bulfinch building's full entablature with balustrade. Fenestration is consistent throughout both wings and includes segmental windows with 10/10 sash at the first story, elongated rectangular windows with 20/20 sash at the second story, conventional windows with 15/15 sash at the third story and squared windows with 10/10 sash in the attic story.

The east and west portions of the wings' southward facing elevation (Beacon St.) are identical excepting minor entry details at the basement and first story levels. The seven bay connectors, which abut the rear corners of the Bulfinch building, include slightly projecting five bay central sections; they further define the central bays of the upper two stories with Corinthian pilasters. On the west a single central entry at the first story is segmentally arched and contains a glazed double leaf door with transom; it is fronted by a broad plaza paved in large granite blocks. On the east, the first story contains three segmentally arched entries with double leaf doors and glazed transoms; they are approached by nine shallow steps flanked by balustraded rails. The interior elevations of the end pavilions are treated in identical fashion, articulated only by broad piers defining the southernmost bays. The three bay south elevations of the end pavilions are also identical from the first story up. The first and second stories are handled in the usual fashion, while the upper stories are enriched with colonnades of four

engaged Corinthian columns and third story windows are further emphasized by projecting caps with mutules and carved eagles. Both basements, which are partially exposed here, are masked by retaining walls with balustrades; on the west while on the east it contains a triple entry leading to Gardner Auditorium with small squared window openings above.

The eleven bay east and west elevations of the wings are identical, excepting once again, minor entry details at the basement and first story levels. The second stories are handled with the usual elongated windows containing 20/20 sash. The third and attic stories are defined by broad piers separating the bays, while the outermost bays (north and south) are further emphasized by Corinthian pilasters and the same decorative third story window treatment seen on the end pavilions. On the west elevation, the partially exposed basement is lit by rectangular windows containing 10 pane sash which correspond in location to openings above. The first story contains a double leaf entry, reached by a metal stair, in the third bay from the north in addition to the usual segmental window openings. On the east elevation (Bowdoin St.), the fully exposed basement contains squared window openings with 20 pane sash which correspond to the fenestration above except in the outer bays where they are doubled. Additionally, a trabeated entry is located in the fourth bay from the north. The first story contains the usual segmental window openings.

Like the other elevations already described, the northern elevations (Mt. Vernon St.) of the wings are identical at the second, third and attic story levels, and include only minor differences at the basement and first story levels. Overall, the north elevation is similar to although less elaborate than the south elevation, consisting of seven bay connectors and projecting end pavilions. The connectors, like those of the south elevation, include slightly projecting five bay central sections, but lack Corinthian pilasters at the third and attic stories. On the west, a single round arched entry with glazed double-leaf door and fanlight occupies the central bay of the first story; it is approached by two granite steps and defined by balustrades which curve out to the Brigham extension on the east and the end pavilion on the west. The eastern connector also contains a central round arched entry, this time with a modern metal double-leaf door; it is also defined by a balustrade but is approached by six steps due to the full exposure of the basement. The end pavilions, which project by only one bay on this elevation, are only slightly less elaborate with pilasters rather than engaged columns defining the third and attic stories.

Interior Appearance

Introduction

The clear exterior division of the Massachusetts State House into its three component parts, signified largely by color, is not as apparent on the interior. This is due to several factors. First, the late eighteenth century Bulfinch building has been modified numerous times during its history, and now incorporates a significant amount of high quality late nineteenth century material. Second, with each addition, an effort was made to harmonize with the earlier portions of the building. The Brigham extension thus repeats many of the Adamesque Federal period motifs established by the earlier structure; and the East and West wings repeat in simpler terms the finish and scale of the Brigham extension.

Bulfinch Building

The plan of the Federal period Bulfinch building is simple, and clearly articulated on the exterior (Plan 1). Doric Hall at the first story and the Senate Chamber (former House Chamber) at the second or principal story, occupy its center as defined on the exterior by the attic pediment and golden dome. Flanking north-south corridors at each level are also contained within the space defined by the arcaded and columned frontispiece and are accessed by doors contained in the outermost bays. Offices occupy the three bay wings at the first story, while at the second story, the Governor's suite is located to the west, and the Senate Reception Room (former Senate Chamber) is located to the east. Simply finished offices, corridors and service rooms are found in the basement and third stories. Original floor level designations were changed at the turn of the century to correspond to those of the Brigham extension so that the basement became known as the first story, the first as the second, etc. Present floor level designations will be used in describing the major individual rooms.

Third or Principal Story

Governor's Office (former Council Chamber)
Photos 44-46

The present Governor's Office, which served as the Council Chamber from 1798-1937, occupies the southwest corner of the third story of the Bulfinch building. Surviving with fewer alterations than any other interior of the Bulfinch State House, it is an elegant and ambitiously designed space which ranks in artistic achievement with the great rooms of eighteenth century America. Of special importance is its plaster Adamesque ornament applied to walls rather than

ceiling, and probably executed by master craftsmen, Daniel Raynerd.

Measuring 27' square with a 20' flat ceiling, the room is finished with a dado and molded chair rail from which paired, fluted Corinthian pilasters at the corners rise to support fragments of architrave and frieze as well as the full, dentilated, modillion cornice which encircles the room. Smooth plaster walls are further articulated by plaster guilloche moldings which form three panels on each wall, and enframe elements such as windows, doors and fireplace. The panels, excepting those which contain ceiling height windows, are subdivided into upper and lower sections with quarter fans placed at all corners. Large oak and laurel leaf wreaths, as well as various symbols of the Commonwealth decorate the smaller upper panels. The full length, round arched windows located on the south and west walls are recessed with panelled soffits, mahogany seats and small plaster wreaths in their spandrels. Entries located on the north and east walls consist of original molded crossetted architraves surmounted by fluted friezes and projecting dentilated cornices which enframe eight paneled doors dating from the restoration of 1896. An ornate brass chandelier dating from c. 1850 is suspended from the center of the ceiling.

A fireplace, flanked by windows, is centered on the west wall. Dated at c. 1812, its mantel is fashioned of black and white veined marble with fluted Doric colonnettes carrying a rather severe frieze and light molded shelf. Painting bills indicate that it replaced a wooden mantel which was probably of more typical Federal period design. The fireplace is surmounted by a two-part guilloche panel which takes the place of an overmantel. The seal of the Commonwealth, enframed by festoons of roses and sprays of laurel, occupies the upper panel.

The south wall, which faces out over Beacon Street, is similar in configuration to the west, although it lacks the fireplace. Instead, its central guilloche panel is left blank below, while above it contains the sword and scales of justice encircled by a laurel wreath as a symbol of executive power.

The east wall contains a center entry flanked by guilloche panels with oak and laurel leaf wreaths in their upper sections. Above the entry is a gilded radiant six-pointed star, an early symbol of the Commonwealth.

The north wall contains entries surmounted by oak and laurel leaf wreaths in its outer panels. The central panel is blank below, while above it contains the Caduceus and Cap of Liberty encircled by a laurel wreath as a symbol of arts and freedom.

Senate Reception Room (former Senate Chamber)
Photos 56-62

The present Senate Reception Room, which served as the Senate Chamber from 1798-1896, occupies the entire eastern end of the third floor of the Bulfinch building, and has always been considered one of the principal rooms. Measuring 55' long (N-S) by 33' wide (E-W), this elegantly finished space is divided into three unequal parts by fluted Ionic column screens, each consisting of two freestanding columns and two deep pilasters abutting the east and west walls. The columns stand on octagonal pedestals and carry structural girts encased to appear as classical entablatures with paneled soffits, and modillion cornices above egg and dart moldings. The cornice portion of the entablature continues around all four walls of the room above pilasters and engaged columns, which echo the rhythm of the column screens and support blocks of the remaining portions of the entablature, the architrave and frieze. The pilasters also serve to divide window and entry bays while enforcing the symmetry of the room. Otherwise, wall surfaces are simply finished with smooth plaster above a wood dado and molded fluted chair rail.

The central space defined by the column screens measures 36' square and is enclosed by a barrel vaulted ceiling, which is one of the chief decorative features of the room. Guilloche and floral moldings divide the ceiling into 15 rectangular compartments, three abreast, and increasing in width from narrow at the lowest to square at the highest. The narrow, lower compartments are decorated with delicate, classical draperies and wreaths. The nine central compartments contain sunbursts in their corners, and either laurel or oak wreaths encircling plaster flowers or ventilating grates (added 1860's). Ceilings over the lateral aisles (N and S) are flat and undecorated.

The south wall, which faces out over Beacon Street, contains three arched windows with molded architraves, floral impost blocks and paneled soffits; these are the only windows in the room to retain their original mahogany window seats. The north wall is identical excepting that window openings were filled in when additions were made to the rear of the building in the 1850's; the easternmost opening now contains a single leaf door dating from the 1890's and leading to the former Senators' coat room. The east wall contains three similar windows, all beneath the barrel vault. The tympanum above the cornice contains the seal of the Commonwealth, encircled by a leaf and ribbon border. The west wall contains three entries, one beneath the barrel vault, and one in each of the side aisles. All have molded and crossetted architraves capped by reeded friezes and projecting cornices defined by dentil courses and egg and dart moldings. The center entry contains paneled double leaf doors while the lateral entries contain paneled

single leaf doors. The engaged columns flanking the center entry were added in 1867, as were the opposite pair on the east wall. In the three central bays of the wall, directly above the cornice of the central door is a balustraded gallery which extends over the corridor separating the Senate Reception Room from the Senate Chamber (former House Chamber). The tympanum above the gallery and main cornice contains a clock and is surmounted by an eagle with semi-extended wings, encircled by a leaf and ribbon border.

Senate Chamber (former Representatives Chamber)
Photos 49-55

The present Senate Chamber, which served as the House of Representatives from 1798-1895, is the central room of the Bulfinch Statehouse, located on the third floor, directly beneath the famous golden dome. Like the adjacent Senate Reception Room, it has always been considered one of the building's principal rooms, although it has undergone many more alterations to its original Federal period design. Square in plan, the configuration of the room appears to be more complex due to the fact that its corners are angled to contain niches which were fitted up with fireplaces or stoves until 1866, while also masking brick piers which buttressed the brick walls flanking the room.

The entire lofty room is richly finished with a dado topped by wood and plaster rustication (added 1867) interrupted by entries and niches on the lower wall surface, while the upper walls contain galleries on all four sides, (the east and west galleries are original while those on the north and south elevations were added in 1867 to provide additional space for legislators) and niches in the angled corners. The galleries are screened by urn balustrades and fluted Doric columns supporting a heavy Doric entablature which is correctly detailed with classical guttae, triglyphs, metopes and mutules. Pendentives rise from behind this entablature, making the transition to the ambitious, circular domed ceiling. The pendentives are decorated with circular emblems representing Commerce, Agriculture, Peace and War with classical draperies and ribbons above, and intertwined cornucopia below.

As was the case with the Senate Reception Room, the ceiling of the Senate Chamber is one of the room's chief decorative features. Presently an ornate circular ventilating grate (replaced earlier ornamentation), from which a massive chandelier (1890's) is suspended, occupies the center of the ceiling. It is surrounded by a delicate sunburst pattern with scalloped edges terminating in a concentric band of stylized foliate ornament. This narrow band is encircled by festoons of oak leaves and ribbons, which in turn give way to radiating ribs extending to the raffle leaf molding at the base of the dome. The circular panels, containing ventilating grates

located between the lower ends of the ribs, were added in 1867 in the never ending quest to provide for better circulation of air in this always overcrowded chamber, especially as original windows were blocked over the years. The precise date of the ceiling design is uncertain at present, since early bills do not exactly match the decorative features as they do in the Senate Reception Room.

The lower wall surface of the north wall presently contains a central segmentally arched opening, flanked by narrow round arched openings, flanked in turn by segmentally arched openings containing round arched niches; all are accented by keystones. Directly above the central opening is a clock set into the gallery balustrade. Paired columns flank the clock while squared pilasters abut the end walls. Pilasters aligned with these elements articulate the rear wall of the gallery while framing a large ornate version of the state seal (1847) and flanking elliptical window openings (1867). The tympanum above the Doric entablature contains a gilded eagle with outstretched wings, and an open beak holding a banner emblazoned with the words, "God save the Commonwealth of Massachusetts".

The south wall is nearly identical in configuration to the north, with the following exceptions: the segmental arched openings of the lower wall surface are open and aligned with the windows beneath the facade colonnade, separated only by a narrow circulation corridor added in 1867. The central opening is an entry containing three steps while the outer openings have low balustrades and seem designed mainly to allow light and air into the chamber although they are currently curtained. On the upper wall surface, a central elliptical window takes the place of the seal on the north wall, and the tympanum is blank. Rectangular entries provide access to the gallery from the east and west.

The east wall contains five evenly spaced segmental arched openings on the lower wall surface. The central one contains a leatherette covered transom and double leaf door leading to the Senate corridor. The northernmost opening contains a door within a round arched opening. The remaining three openings contain round arched niches. The gallery above is screened by four evenly spaced, freestanding columns with engaged columns abutting the end walls; pilasters aligned with these elements articulate the rear wall of the gallery. Rectangular entries provide access to the gallery from the north and south. The tympanum is blank.

The west wall is identical with two minor exceptions. The northernmost opening of the lower wall surface contains a niche rather than a door and there is no entry at the southern end of the gallery.

Second Story

Doric Hall
Photos 37-43

Doric Hall, originally known as the Public Walk, occupies the center of the second floor of the Bulfinch building, directly beneath the Senate Chamber and the golden dome. It is the public reception space to which one ascends when climbing the granite steps from Beacon Street and so represents most visitors' first experience of the spectacular interior of the Massachusetts State House. Measuring approximately 55' square, it is a dignified room ornamented chiefly by two parallel north-south rows of five Roman Doric columns each, which divide the room into thirds and establish the rhythm of triple arches carried into the ceremonial spaces of the Brigham extension. Like the Senate Chamber above, the Hall's corners are angled to contain niches and to hide structural piers; also like the Senate Chamber, the Doric order is employed.

The columns, which give the room its name, are set on panelled rectangular pedestals and carry blocks of Doric entablature correctly detailed with triglyphs, guttae and mutules; the upper two-thirds of the column shafts are fluted. Fashioned of marble, iron and plaster, these columns replaced wooden originals in 1897 as part of the attempt to fireproof and restore the building. Complementing use of the Doric order for the column screens just described is the plaster cornice with mutules which encircles the room. Other finish materials are simple, including a gray marble floor and baseboards dating from 1897, smooth plaster walls with a molded chair rail, flat undecorated ceiling, and molded arched door surrounds with three part keystones echoing those of the frontispiece arcade.

The south wall, which faces out toward Beacon Street, contains five symmetrically placed round arched openings which align with the frontispiece arcade and the column screens. The central opening, which was the main entry to the State House, is the largest, containing a panelled, double leaf door surmounted by a panelled transom, a geometrically detailed architrave and a fanlight. The flanking openings are deeply recessed windows with built-in seats. The outermost openings are similar but have no surrounds and are set behind the angled arched openings which screen the corners of the room.

The north wall also contains five symmetrically placed, round arched openings. In the center is a floor length niche holding a marble statue of Washington (1826) which is flanked by bronze tablets honoring Bulfinch (west) and the preservation of his elegant late-eighteenth century State House (east). Flanking these elements are entries with molded architraves and keystones leading up five steps to the juncture of the Brigham extension. The cornerpieces of the room contain niches

probably added in the 1860's to fill in the earlier arches.

The east and west walls are identical, each containing two arched entries adjacent to the cornerpieces and leading to the flanking hallways. The entries are smaller than those of the north and south walls and include heavily molded impost blocks.

The hallways themselves have been greatly altered over the years, as have the flanking office spaces.

Brigham Extension

The late nineteenth century Brigham extension continues the basic division of spaces established by the Bulfinch building as part of the effort to harmonize the two structures. Its core is occupied by the ornate, public, ceremonial spaces of the Senate Staircase Hall, Memorial Hall and the Grand Staircase Hall followed by a large lightwell and a Rear Stairhall at the northern end. Long N-S corridors, aligned with those of the Bulfinch building and connected at the northern end, embrace those internal spaces while providing access to the office suites which line the east and west elevations. The corridors, which are generous in dimension and elegant in finish, do much to establish the character of the extension.

The second and third stories, which contain the principal rooms and spaces of the extension, are the most ostentatious, with elaborate marble and carved mahogany finishes, as well as intricately detailed entries leading to the most important rooms. The first and fourth stories are somewhat less grand, with oak generally replacing mahogany, brick replacing marble and most details simplified. The basement and fifth stories are utilitarian in character. Noteworthy rooms and spaces are described below:

Vestibule between Doric Hall and Senate Staircase Hall

A small rectangular vestibule which continues the ceiling height of Doric Hall, although its floor level is five steps higher, acts as the transition between the "public walk" of the Bulfinch building and the major ceremonial spaces of the Brigham extension. As a transitional area, it serves to temporarily restrict space while making stylistic references to the very different rooms adjoining it to the south and north. Its walls and floor are finished in polished medium gray marble panels with a border of darker gray marble bands enclosing yellow marble diamonds. At the ceiling level is a broad but plain frieze and a heavily molded cornice which alternates the mutules of classical vocabulary with diamonds. The relatively low ceiling is coffered by beams which extend from alternate mutules; the center of the ceiling contains a recessed stained

glass panel surrounded by a combination egg and dart/bead and reel molding.

The south wall is fully taken up by a triple arch whose outer members lead down to Doric Hall; the central arch is blind and contains a bronze statue. All three arches have heavy egg and dart moldings at the outer edge of their extrados and impost blocks carved with foliate moldings. The north wall is identical excepting that all three arches which lead to the Senate Staircase Hall are open and have richly coffered soffits with floral centerpieces. Monumental round arched entries with molded extrados and impost blocks as well as coffered soffits, are centered on the east and west walls. Both entries are further embellished by pilasters carrying heavy entablatures carved with a variety of egg and dart, bead and reel, and talon moldings. These entries open onto smaller vestibules, which in turn provide access to the east and west corridors, and also contain stairs leading down (north) to Mt. Vernon Street.

Senate Staircase Hall or Nurses' Hall
Photos 71, 72

The Senate Staircase Hall, like the vestibule to the south, is almost entirely finished in marble, although here many more colors are introduced in preparation for the even richer treatment of Memorial Hall to the north. It is approximately twice the size of the vestibule and rises to the full height of the third story ceiling, thus providing an important vertical connection to the Senate Chambers (E) and Governor's Suite (W) on the third floor. Monumental two run staircases ascend the east and west walls with their first runs abutting the north wall; solid balustrades are formed of handsome black and white grained marble with egg and dart moldings beneath the rail and beaded moldings outlining the stair treads and risers. A bronze statue of a Civil War nurse stands at the base of the east stair, providing the hall with its alternate name, and introducing the iconography of Memorial Hall.

The Senate Gallery, at the third story level, is screened from the hall below by a balustrade identical to that of the staircases, on the south, east and west; the north wall is infilled with early twentieth century paintings of Revolutionary War scenes. The balustrade rises from a continuous, white marble frieze carved with a wave motif while Ionic columns (pilasters on the solid north wall) rise from it to support an ornate coffered ceiling. Each ceiling coffer consists of a floral center with a glazed light fixture set in an octagonal recess enriched with floral, dentillated, and egg and dart moldings. The treatment of the floor is similarly rich with a large central sundial in gray and black grained marble and bronze inlaid compass tips which is surrounded by an inner border of yellow marble diamonds enclosed by dark gray marble bands similar to that of the vestibule.

The east and west walls of the hall are dominated by the staircases already described, but also contain arched openings beneath the stair soffits which provide views to the east and west corridors over stairs descending to Mt. Vernon Street. The south wall contains the triple arched entry leading to the vestibule while the north wall contains a similar element leading to Memorial Hall. The northern arches are supported on Doric pilasters, executed in yellow marble and separated by bronze tablets with Civil War soldiers in relief; these devices introduce one to the dominant order, materials and iconography of Memorial Hall.

Memorial Hall or Hall of Flags
Photos 73-75

Located between the grand lobby/circulation areas of the Senate (S) and Main (N) Stairhalls, Memorial Hall is both the centerpiece of the Brigham extension's progression of monumental public spaces and a self-contained jewel box where movement temporarily halts. Circular in plan, it rises three stories to a lofty domed ceiling enriched by a variety of moldings, as well as a central stained-glass panel. Lower wall surfaces are uniformly treated with a handsome, polished, yellow Sienna marble, while the floor is richly patterned with black, red, yellow, gray and white marble mosaic tiles.

Symmetrical in elevation, the room is encircled at the first level by sixteen Tuscan columns with egg and dart echinus, supporting a Doric entablature with triglyphs, metopes, and a dentil course; an urn balustrade, screening a shallow second level gallery, rises directly from this entablature. Pilasters behind the columns help to divide the lower wall surface into equal bays containing round arched openings with molded impost blocks and extrados. The three southernmost and northernmost arches are entries leading to the Senate and Main Stairhalls respectively; to accommodate the transition from a round to rectangular rooms, the outer arches of these triple groups are splayed slightly and contain niches in their outer reveals. The eastern and western arches are entries leading to the main corridors and are distinguished by egg and dart moldings on their extrados and coffered soffits. The paired intermediary arches are glazed niches containing the Commonwealth's regimental battleflags; these niches are protected by handsome curved brass rails supported by griffins.

The gallery level above is entered from the third floor corridors through double leaf, leatherette covered doors situated in all four corners. As previously mentioned, it is finished in polished yellow marble with an entablature consisting of molded architrave, frieze with wreaths, and projecting modillion cornice. Large round arched openings above the north, south, east and west entries of the first story interrupt this entablature while rising into the dome

area. Containing patriotic murals, the arches themselves are carved with an egg and dart extrados and coffered soffit.

The dome is highlighted by gilded guilloche molded ribs which define the pendentives and lead to the central skylight. The skylight, which contains finely crafted stained glass, rests on a deep bronzed cove holding eight eagles with outstretched wings. Glazed, tulip-shaped light fixtures ring the cove.

The floor is inlaid with a central compass identical to that of the Senate Stairhall, ringed by concentric bands of ornament.

Circulation Elements

The vertical and horizontal circulation elements of the Brigham extension play an important role in defining its character both because a large amount of space is devoted to them and because they are totally accessible to the public. Vertical elements include the Senate Staircase Hall (or Nurses' Hall) of the extension's southern end, the Grand Staircase Hall (or Representatives' Hall) at the center, and the Rear Staircase Hall at the northern end. Horizontal elements are the single, loaded east and west corridors, which traverse the length of the extension at all levels. Supplementing these major elements are original elevator banks located just south of the Senate Stair and mid-way between the Grand and Rear Stairs.

Vertical Elements
Photos 76-79, 81, 82

Vertical circulation is achieved primarily through three grandly conceived staircases which, like the rest of the extension, are most highly elaborated at the second and third story levels. The Senate Staircase Hall, which is fully described as part of the monumental progression of second story spaces, must also be mentioned here. Beginning at the second story, it rises only to the third, for the purpose of providing a grand ascent to the Senate Chambers and Governor's Suite. Descent to the first floor is achieved through simple marble stairs tucked in lateral vestibules, (see description of Vestibule between Doric and Senate Staircase Hall), while ascent to the upper floors is gained through three run, embossed metal stairs located south of the Senate Staircase Hall and adjacent to a lightwell separating the Bulfinch building from the Brigham extension. The Grand Staircase Hall ascends without interruption from the basement to the third story and is entirely open to the east and west corridors, allowing for easy cross circulation, while providing a great sense of openness. At all levels, the stair consists of a broad single run with a splayed foot, which rises to an intermediary landing lit by a Palladian window and then splits into two narrower runs rising to the east and west corridors. The stair is fashioned of white marble risers and treads,

bronzed embossed metal closed strings and soffits, ornate rinceau-patterned metal balustrades and mahogany rails.

Above the third story, the stair ascends in double runs tucked against the courtyard/lightwell. Despite their more obscure position, they are fashioned of the same elaborate materials as the main stair.

The design of the grand hall encompassing the stair changes from level to level, reflecting the varied treatment of the corridors. In general, however, they are distinguished by freestanding columns supporting heavy beams which divide the ceiling into recessed rectangular panels. The order employed progresses from Tuscan at the basement level to Roman Doric with egg and dart echinus at the first story, to Ionic at the second story, to Corinthian at the third story, to Composite at the fourth story as in proper examples of supercolumniation of classical orders, progressing from the simplest at the lowest level to the most ornate at the highest level. The columns flanking the stair are tripled at the basement and first stories, paired at the second story, and stand alone at the third.

The Rear Staircase Hall is similar to the Grand Stair just described, and also ascends without interruption from the basement to the third story. At all levels, it consists of a single run rising to a landing lit by a Palladian window, and then splitting into two runs which rise to the east and west corridors. Its materials and decoration are nearly identical to that of the Grand Stair, with the exception of its balustrade which follows a somewhat simpler pattern. Above the third story the stair ascends in single runs placed against the rear wall of the courtyard.

Elevators remain in their original position but have been increased in number and replaced by more up to date units.

Horizontal Elements
Photos 76, 80, 83, 84

The east and west corridors will be described by floor as their finishes change at each level. While the corridors are generally considered to be of secondary significance, those areas adjacent to the ceremonial spaces on the second and third stories should be considered of primary significance due to their proximity and somewhat greater elaboration.

At the Basement Story, the corridors are finished with concrete floors, plaster ceilings and buff glazed tile walls articulated by gray marble Tuscan pilasters complementing the freestanding columns found in the Grand and Rear Stairhalls. Generally, the entries leading off the corridor consist of molded, rectangular architraves containing glazed transoms, and glazed and panelled

oak doors.

Finishes at the First Story are somewhat more refined, including gray marble floors with dark red slate diamonds and narrow bands defining column bays, plaster walls with gray marble dado and Tuscan pilasters with egg and dart echinus, and plaster ceilings. Free standing Roman Doric columns with egg and dart echinus supporting coffered ceilings are found in the Main and Rear Stairhalls. Entries leading off the corridor are round arched with molded gray marble architraves enframing panelled and glazed mahogany doors with semi-circular and elliptical fan lights. Distinguishing features at this level include the entries leading off Mt. Vernon Street as well as the more ceremonial entry leading off Bowdoin Street from the former East Park (now a parking lot).

Leading north off Mt. Vernon Street into the Grand Staircase Hall is a triple entry marked by coffered arches on the exterior. It consists of three heavy, panelled, double leaf doors with single light transoms, all of which are enframed by molded marble architraves. This purely Victorian treatment stands in contrast to the Federal Revival style design of the interior vestibule which screens the center entry, the only one of the three still in use. The vestibule's design includes paired, fluted Ionic pilasters, enframing 3/4 length leaded sidelights and carrying a simple entablature with modillion cornice. A semi-circular fanlight with wood tracery is located above the entablature. The double leaf doors are leatherette covered and contain glazed, oval upper panels. Twin entries, aligned with the east and west corridors lead south off Mt. Vernon Street. They consist of heavy, glazed and panelled double leaf outer doors with semi-circular fanlights, which lead into small vestibules where three steps ascend to similar inner doors head by eliptical fans. The single entry leading west off the Ashburton parking lot consists of a heavy panelled double leaf door headed by an elliptical fanlight. It is flanked by round arched windows and embraced by typically detailed metal and marble stairs leading down to the basement level. Two free standing marble columns stand at the head of the stairs and act as a screen to the vestibule area.

Finishes of the Second Story are somewhat more elaborate than those of the first, with differences noted primarily in the following areas. Free standing, fluted Ionic columns and Roman Doric pilasters with egg and dart echinus define the Grand Staircase Hall and carry a coffered ceiling, while Tuscan pilasters with egg and dart echinus are found elsewhere in the corridors. Floors are inlaid with marble mosaic tile, consisting of gray panels outlined by yellow, red, green and gray patterned bands aligned with the columns and pilasters. The Grand Staircase Hall is distinguished by a large circular mosaic design which reflects the plan of the adjacent Memorial Hall (Photo 76). The designs employed in floors reflect

classical Adamesque motifs such as anthemions and palmettes. Entries leading off the east and west corridors are generally similar to those of the first story.

The Third Story is the most elegantly finished. Fluted Corinthian columns and pilasters define the stair halls and southern end of the corridors, while Tuscan pilasters line the north corridors. The marble floor is similar to that of the first story, but is further enriched by lighter red diamond designs within the deep red bands which define the column bays. Entries leading off the corridors generally consist of double-leaf doors headed by elliptical fanlights, although several, especially in the areas of the three Stairhalls are elaborated with Adamesque carved pilasters and entablatures. The most spectacular is the center entry leading to the House of Representatives (Photo 80). The west corridor, between the Grand and Rear Staircase Halls, is closed off as a private area for members of the House of Representatives.

The Fourth Story is distinguished by Composite Order columns and pilasters, and a mosaic tile floor similar to that of the second story, although the gray panels are replaced by a pebbled pattern. The west corridor is angled to accommodate the House Gallery and the dome of Memorial Hall. Entries leading off the corridors sometimes have simple plaster rectangular architraves enframing panelled oak doors. In other cases, however, they have elaborate columned and pilastered surrounds and are elevated by three or four steps to provide additional ceiling height for important rooms below. An impressive entry leads to room 433, the former Senate Judiciary Committee Room, which is also accessed by a private stair from the Senate President's suite. Its sidelights and transom contain classically derived stained glass designs, while its oak doors contain stained glass panels depicting the Mayflower at Plymouth and the Arabella at Salem. The surround is a simple rectangular architrave.

Senate President's Suite
Photos 85-90

The suite of rooms occupied by the Senate President and a portion of his staff is located at the southern end of the east corridor, along the upper Hall of Flags, in close proximity to the Senate Chamber and Reception Room. Consisting of four offices of varying sizes, as well as private vestibule space, the suite is distinguished by its fine mahogany panelling and built-in furnishings, its elegant carved mahogany mantelpieces and marble-faced fireplaces, its Adamesque plastered ceilings, and by the extension's sole remaining example of original wallcovering. The suite is in excellent and near original condition throughout, due to the high level of care exercised by its occupants and the fact that its use has been little changed. Individual rooms are described from south to north.

President's Office (former Senate Reading Room)

The southernmost room is a large, square space, originally designated as the Senate Reading Room, but now occupied by the Senate President as his private office. Walls are finished to door height with some of the finest and best preserved mahogany panelling in the extension. Raised field panels, some defined by egg and dart, and bead and reel moldings, decorate the lower surface, while portrait panels containing likenesses of past Senate presidents adorn the upper surface; a band of diamond encased flowers topped by egg and dart, and bead and reel molding separates the two sections, while a talon molding terminates the panelling. The wall above the panelling is now painted a plain yellow ochre, although it was originally covered with a richly patterned paper, visible in both Brigham's elevation drawings and early photographs. A coved ceiling with an Adamesque plastered centerpiece rises from a plaster entablature with various egg and dart, bead and reel, talon, and dentil moldings, and a frieze of intertwined cornucopia. Early photographs indicate that the ceiling was originally painted, with the cove area done in a diamond pattern.

A large and unusually handsome fireplace is centered on the north wall between a door (W) leading to the rest of the suite and a window (E). The facing and hearth of the fireplace are executed in a polished white, ochre and green veined onyx marble. The mahogany surround consists of Adamesque carved pilasters carrying heavy consoles which in turn support a mantel with fluted architrave, frieze carved with cornucopia and various foliate motifs, and cornice with dentil course, and egg and flower molding. On the wall above the fireplace is a gilded clock surrounded by cornucopia, leafs, sheaves of grain and an eagle.

The south wall is dominated by a large, built-in mahogany cabinet with Adamesque carving, glazed upper doors, and leaded glass lower doors; it is flanked by two entries leading to the corridor of the 1914 East wing. Entries on both the north and south walls consist of doors with oval upper panels, headed by diamond patterned transoms, and enframed by Adamesque carved pilasters carrying entablatures at ceiling height.

The west wall contains two double leaf doors with glazed, upper panels which lead to the extension's east corridor. They are headed by stained glass fanlights with carved keystones, but their surrounds are similar to those of the north and south walls. They are currently covered with velvet draperies.

Hall outside Senate President's Office

The door west of the fireplace in the President's office leads to a corridor which provides access to the rest of the suite

and also to a committee room above (present Room 433). Like the President's office, the hall is panelled to door height in mahogany, although in this case, the effect of eighteenth century raised-field panelling is achieved through a three part application of thin layers of wood of decreasing size. The major feature of this hall is the staircase leading to Room 433, which has a handsome, scrolled, metal balustrade. The ceiling is enriched by an ornately molded plaster border.

Clerk of Senate's Private Office

Although this room is simpler in treatment than others in the suite, lacking wall panelling, it nevertheless boasts many handsome details. Its ceiling is decorated with typical Adamesque motifs including a rich frieze with wreaths, ribbons, and swags. The fireplace on the south wall has a red and ochre veined marble face and hearth surrounded by a polished dark mahogany frame with fluted frieze and panelled overmantel. East of the fireplace is a built-in cabinet of the same wood. Both fireplace and cabinet are surmounted by an anthemion and palmette carved frieze. A wardrobe, similar to the cabinet is located on the north wall.

Clerk of the Senate's Public Office
Photos 91-93

Presently functioning as the reception area for the Senate President's suite, this generously-sized, rectangular room is panelled to door height in raised field mahogany panelling. It also posesses an ornate Adamesque plaster ceiling and intricately carved, built-in furnishings which rival those of the former Reading Room. The west wall is symmetrically designed with a recessed center entry flanked by alcoves containing their original pigeonhole shelves for the Clerk's records. The double leaf door is treated with a Federal Revival style stained glass fanlight while the alcoves are headed by more robust Georgian Revival style broken scroll pediments. A similar broken scroll pediment also heads the fireplace composition on the north wall. Here, the fireplace has a red, ochre and green veined marble hearth and face, while the surround consists of modified caryatids carrying a fluted frieze and panelled overmantel. East of the fireplace is an Adamesque carved built-in cabinet. Another built-in cabinet with glazed doors is centered on the south wall between doors leading to the Clerk's Inner Office (E) and the Reading Room hallway (W). Three evenly spaced windows with surprisingly simple quarter round surrounds, are located on the east wall along with intervening, Adamesque carved cabinets.

Coolidge Room - former Senate President's Office
Photos 94-96

Until the 1960's, the small, but elegantly finished Coolidge

Room served as the Senate President's Office. It is the most intact of any room in the Brigham extension, retaining its original decorative wallcovering, stained glass corridor window, and even its roll-top desk. Walls are finished in dark mahogany to door height, where an intricately carved Adamesque frieze encircles the room; a secondary frieze carved in a wave pattern acts as a chair rail. Above the panelling, the walls are treated with a textured bronzed material embossed with raised Adamesque wreaths and swags; the precise composition of these materials is presently unknown. The ceiling, which rises above an ornate entablature, is typically Adamesque in its plaster ornamentation, and is also bronzed to match the upper walls.

A fireplace, equal in elaboration to others in the suite, is centered on the north wall between cupboards with glazed doors and Adamesque carving. It has a black with pink and white grained marble face and hearth, while its mahogany surround consists of carved pilasters and consoles supporting a mantle frieze carved with anthemions and palmettes, and an overmantle with crossetted corners. A broken scroll pediment is also found over the entry on the west wall, which also contains a leaded stained glass window.

State Library
Photos 113-116

The large rectangular space of the State Library Reading Room occupies the northern end of the third floor behind the Corinthian colonnade articulating the rear Derne Street elevation. It is flanked by the Head Librarian's private offices to the west and stacks to the east; additional stack space with glass floor mezzanines is found on the fourth and fifth floors. The Reading Room, which is one of the extension's major spaces, is entered from the Rear Stairhall through a large double leaf door with carved marble Adamesque surround; elaborate panelled bronze pocket doors provide security during off hours.

The Reading Room, whose vaulted ceiling rises to the fifth floor level, is divided into three unequal parts by massive triple arches, with coffered soffits and fluted and molded extrados, at the east and west ends. A gallery at the fourth floor level occupies the space behind the arches and also runs along the south wall where it is supported on slender, fluted, Composite order columns. An ornate metal balustrade, with major elements of its scrolled foliate design picked out in bronze, runs along all three sides of the gallery above an entablature with a fluted frieze. The reference desk and librarians' area is located beneath the east gallery while additional reading space (now screened by a bookcase partition and swinging double door) is found beneath the west gallery.

The vaulted ceiling springs from a full entablature consisting of architrave with bead and reel, and egg and dart moldings; frieze with heavy rinceau carving interspersed with state seals; and a cornice with various moldings, a dentil course, and carved modillions. Ornamental gilded antifixae rise above the cornice. The ceiling is plain, with the exception of fret carved ribs which rise from the above mentioned state seals to enframe three stained glass ceiling panels. The present drab appearance of the ceiling probably overlays a more ornate original treatment as evidenced by a raised fleur-de-lis pattern, still visible on close examination.

The north wall which faces the entrance, is entirely taken up by five large round-arched windows in the central space and one in each of the side aisles. Rising to the same height as the triple arches at the east and west ends, the arched surrounds are treated in similar fashion with fluted and molded extrados. Rather than springing from heavy support piers however, they rest on decorative Adamesque carved pilasters and projecting impost blocks. The arches contain richly colored stained glass fanlights which complemented the original paint scheme of greens, ochres and terracottas. Evidence indicates that the windows themselves also contained stained glass which would have contributed greatly to the richness of the Reading Room's interior appointments. The south, east, and west walls are plain with the exceptions of entries with carved surrounds leading to the rear stairhall, the stacks and the Head Librarian's offices respectively.

House of Representatives
Photos 97-102

The present House of Representatives, generally considered to be the artistic culmination of the Brigham extension, is the only interior space to be fully expressed on the exterior, where its elliptical plan bows out onto Hancock Street, providing the visual focus for the west elevation. Strategically located between the lavish offices of the Speaker and his staff (S), and the private Reception and Reading Rooms of the membership (N), its completion in 1895 finally provided the State's Representatives with ample room in an elegant theater-like setting. Additionally, the House Chamber opens onto the large public lobby area formed at the top of the Grand Central Staircase on the third floor level, providing additional space as well as direct communication with the executive and senatorial branches of state government.

Access to the Chamber is gained through three entries, all with Adamesque surrounds carved in marble. The larger and more ornately detailed center entry is no longer used, but the side entries open into trapzoidal vestibules which are finished with marble wainscotting, mahogany panelling and mosaic tiled floors. These transitional spaces open directly into the

Chamber which is richly panelled in light colored, South American mahogany and enclosed by an ornate, shallow, domed ceiling which, unfortunately, lost its central stained glass skylight in the late 1960's when appreciation of the Brigham extension appears to have been at a nadir. Seating in the Chamber has been changed numerous times, but the members' original mahogany desks are retained, as well as the three large ornately carved desks reserved for the leadership, and situated against the west wall; original benches are also retained in the east gallery which is designated for use by the general public.

The entire lower wall surface of the Chamber is finished in mahogany, divided into rectangular panels which mimic eighteenth century raised field panelling through a three part application of thin layers of diminishing size. Some of the panels are picked out with bead and reel, guilloche, and talon moldings. Sections of panelling also project slightly beneath paired gallery columns and pilasters, and contain large ovals at their centers. A narrow entablature with an egg and dart architrave, a wave frieze and a dentilated cornice tops the panelling while a simple molded baseboard runs beneath it.

The upper wall surface of the Chamber is treated with massive paired fluted columns of the Composite order, which screen the main east gallery, and with similar paired pilasters on the other walls. A heavy, ornate mahogany balustrade consisting of carved urns with Ionic capitals, and lion end pieces, fronts the north, south and east galleries. The west wall is treated with paired pilasters enframing five murals which portray "Milestones on the Road to Freedom in Massachusetts". The paired columns and pilasters, whose capitals are picked out in an original umber glaze, support a full entablature consisting of a three-part molded architrave, a frieze bearing the names of fifty-three prominent Massachusetts citizens, and a dentilated modillion cornice.

The domed ceiling of the Chamber rises above this entablature in two parts. The lower section is treated with heavy, umber glazed ribs rising from the paired columns and pilasters to the upper cove; it is further subdivided by two horizontal cross ribs encircling the room. The lower surfaces of all ribs are carved with a double interlace guilloche molding with small circles at the intersections; bead and reel, and acorn and flower moldings enrich the sides of the ribs. The panels created between the ribs are painted with swags of fruit and cornucopia in the lowest tier, and symbols for Law, Commerce, War and Science in the central tier; ventilating grates now fill the upper tier. At the base of the upper cove is a ring of modern recessed lights enframed by leaf moldings. The upper cove itself rises from a full entablature consisting of a molded architrave, a frieze with anthemions and palmettes, and a cornice with egg and dart molding. Its surface is painted

with a scrolled floral design in varying tones of gold, brown and umber. As has been previously noted, the oval center of the ceiling has lost its original stained glass skylight and is presently treated with smooth plaster and recessed lights. This, along with removal of original lighting fixtures, is the only major alteration experienced in the Chamber.

House Speaker's Suite
Photos 103, 104

The suite of rooms south of the Representative's Chamber which are assigned to the House Speaker are among the most elaborately finished in the building. Consisting from north to south of the Speaker's Private Room (#354), the Committee on Rules (#355), the Speaker's Secretary (#356), and the Clerk of the House (#357-358), they are generally characterized by mahogany panelling carved with Colonial Revival Style and Adamesque motifs and by exceptionally fine ceilings with raised plaster Adamesque ornamentation. Although it is unlikely that the ceilings display their original colors, they are unusual in their multi-colored schemes (excepting the Clerk's Office) of ochre, blue, ivory and gold, which at least demonstrate the complexity of the originals.

The Speaker's Office is panelled in dark mahogany to approximately ten feet, with the upper panels containing photographs of past Speakers. The panelling is terminated by a frieze of swags and a cornice composed of egg and dart and reeded moldings. Wall surfaces above the panelling are plain plaster. The ceiling consists of a complex molded cornice finished with a greenish ochre glaze surrounding delicate plaster Adamesque motifs currently picked out in blues, ivories, and golds.

A relatively small, but well-detailed fireplace is centered on the north wall. It consists of a red and ochre veined hearth and face with an elaborate bronze edging. The mahogany frame includes Adamesque carved pilasters, a frieze carved with urns and anthemions, and a mantel shelf supported on carved brackets. The fireplace is flanked by doors with square panels below and oval above, both surrounded by simple molded architraves. The west wall contains two high, narrow windows with simple architraves, symmetrically placed. A door with typical panelling, but headed by a broken scroll pediment, is centered on the south wall and flanked by low glazed bookcases. An identical door, leading to the corridor, is located north of center on the east wall.

Adjoining the Speaker's office to the south is the former Committee on Rules Room. Similar, but somewhat simpler in its finishes than the Speaker's office, it is panelled to approximately five feet with dark mahogany raised field panelling. The upper wall is finished with plain plaster. The

ceiling consists of an elaborate Adamesque design painted in the same colors as that of the Speaker's office.

A fireplace, centered on the south wall, consists of a red and ochre veined hearth and face with elaborate bronze edging. Its mahogany frame includes Adamesque carved pilasters and frieze, and a mantel supported on brackets. A door with oval and square panels stands to the west of the fireplace; it is enframed by a molded architrave, frieze carved with anthemions and palmettes, and bracketed cornice. The east wall contains a double door with glazed upper panels leading to the corridor; it is enframed by a molded architrave and surmounted by an elliptical fan light with guilloche moldings. Located north of center, it shares the east wall with a wardrobe surmounted by a broken scroll pediment. A door, identical to that on the south wall, is found on the north wall, while two symmetrically placed windows with simple architraves are found on the west wall.

The former Speaker's Secretary's room is the simplest of those found in the suite. Its plaster walls are unadorned with the exception of a chair rail consisting of bead and reel, egg and dart and talon moldings. A wide frieze with gilded Adamesque motifs on a blue ground articulates the uppermost portion of the wall and gives rise to an elaborate ceiling similar to those of the preceeding rooms.

A small, fairly simple fireplace is located on the south wall. It consists of a red and ochre veined marble hearth and face with egg and dart bronze edging. It is surmounted by a mahogany entablature consisting of egg and dart molded architrave, frieze carved with swags and two carved consoles supporting the mantel shelf. An oval and rectangular panelled door with simple architrave stands to the east. The east wall contains an entry with panelled door and semi-circular fanlight recessed between a former lavatory and vault. The north wall contains a single door, similar to that of the south wall, located slightly west of center. The west wall contains a single window with simple architrave which cuts through the ceiling frieze.

The space originally assigned to the Clerk of the House is a large, square room, currently subdivided by partial height, panelled wood partitions. The same panelling has also been applied to the walls obscuring whatever treatment may have originally existed. The chief feature of the room is its elaborate ceiling, now unfortunately painted in monochromatic off-white. The ceiling consists of a cornice with dentil, bead and reel, and egg and dart moldings rising to a shallow diaper patterned cove, further enriched by floral centerpieces and bosses and three large cartouches on each of the four sides. The ceiling's center, which is defined by a bundled reed molding, consists of geometric panels formed by a variety of

moldings.

A large fireplace with ivory and ochre veined marble face and hearth is centered on the north wall. It is enframed in mahogany by an elaborate architrave of egg and dart, guilloche, and reeded moldings, and by fluted Ionic colonnettes supporting a mantel above a wide frieze. The east wall contains two symmetrically placed entries leading to the corridor. Each contains double leaf doors with glazed upper panels surmounting an elliptical stained glass fan and enframed by a simple plaster molding. The west wall contains two symmetrically placed windows with simple architraves; the southernmost has been converted to a door which communicates with offices in the west wing.

House Members' Suite
Photos 105-112

The suite of rooms assigned to the members of the House of Representatives for reading, writing and private gathering are among the most lavishly decorated in the Brigham extension. Located immediately north of the House Chamber on the third floor, they are entered through a private lobby formed by blocking off the northern end of the west corridor. Individual rooms are described from south to north.

Reception Room - Room 350

The large rectangular Reception Room, adjacent to the House Chamber, is finished with a similar light mahogany wainscotting, treated to appear as raised field panelling with bead and reel moldings. A high chair rail of fluted, foliate and talon moldings caps the wainscotting and provides the transition to plain plaster walls. An ornate cove, retaining what appears to be its original coloring of glazed green and ochre tints with details picked out in gold, encircles the room at ceiling height. Enframed by a variey of complex moldings, the cove itself is fluted with applied acanthus leaves at eight flute intervals. The ceiling is an ornate example of Federal Revival style, Adamesque design with a large oval central panel surrounded by smaller circular and trapezoidal panels.

An elaborate fireplace is centered on the north wall with a door to the east providing access to the Coat Room beyond. The fireplace has a pink veined and marble surround and a tiled hearth with an anthemion and palmette border. Its mantel is supported on acanthus leaf consoles which rise from molded piers. Foliate, and bead and reel moldings are found on the frieze beneath the mantel. There is no overmantel, although the fireplace composition does break through the room's coved cornice. The east door mentioned above is enframed by a simple architrave, and consists of an oval upper panel and rectangular lower panel, both emphasized by bead and reel and talon

moldings.

Two evenly spaced doors, with glazed, oval, upper panels and solid, rectangular, lower panels, are located on the east wall leading to the corridor. They are enframed by a complex, molded architrave headed by a plain frieze with floral corner blocks, and a cornice consisting of dentil, bead and reel, egg and dart, and crown moldings. Similarly detailed double leaf doors are located on the south wall leading to the Chamber. Three windows consisting of 1/1 sash and stained glass transoms in pale pinks, blues, ochres and greens, enframed by architraves with bead and reel, and egg and dart moldings are located on the west wall.

Coat Room - Room 348

The Coat Room today (currently a Conference and Meeting Room) appears as a drab space painted entirely in ivory and finished only with a simply molded cornice. Examination of early plans reveals that a single run stair, whose ghost is still visible, once ascended the east wall to a committee room above. Documents also reveal that some type of woodwork was originally present in the room. Most importantly, physical analysis reveals that the walls of the room were originally painted in imitation of the light gray veined marble found throughout the extension, and that this treatment remains intact beneath the present painted layers.

General Reading Room - Room 345

The General Reading Room is a large square room with an exceptionally high ceiling, which successfully combines elements of the Georgian, Federal and Renaissance Revival styles. Its lower wall surface is finished with a dark mahogany wainscotting with crossetted corner panels, defined by talon and bead and reel moldings. This wainscotting, drawn from from the vocabulary of the Georgian Revival style, is capped by an egg and dart, and talon molded chair rail. The upper walls are plaster with Adamesque Composite Order pilasters, reflective of the Federal Revival style, enframing major elements such as doors, windows and fireplaces. The pilasters also support an entablature with pearl and talon molded architrave, wide textured frieze, and elaborate cornice with fluted modillion blocks interspersed with rosettes. The lofty ceiling is handled in a bold Renaissance Revival style manner, with six deeply recessed coffered panels containing diamonds, enframed by fourteen narrower panels. The heavy beams which form the coffers are richly detailed with geometric interlace and foliate moldings.

An elaborate fireplace, with pink veined marble surround and tiled hearth with anthemion and palmette border, is centered on the north wall between two doors. The fireplace is enframed by

an architrave of complex moldings, a frieze with putti and cornucopia in high relief, and a mantel supported by Ionic colonettes and corner blocks carved with a diamond pattern. Paired pilasters enframe the fireplace and define its projecting wall surface. The flanking doors, which are enframed by single pilasters, have glazed oval upper panels and solid rectangular lower panels. Their crossetted architraves are enriched with bead and reel and talon moldings, and are headed by friezes with beribboned swags in high relief, and cornices with dentil, egg and dart, and crown moldings.

Two identical doors, also enframed by pilasters, are located on the east wall leading to the corridor. The south wall consists of a blank central panel defined by paired pilasters and a window to the west with 1/1 sash, a simply molded architrave and a built-in window seat. Two identical windows with heating units replacing the seat are evenly spaced on the west wall. All three windows are enframed by pilasters.

Reading and Writing Rooms - Room 343 (currently House Majority Leader's Office)

Once an integral part of the private House rooms, this double space has been converted to offices with partitions subdividing the former Reading Room. Despite this alteration, the grandeur of the space is still apparent. Connected by a wide rectangular opening, defined by fluted Composite pilasters and richly molded soffit, both rooms are enclosed by high vaulted ceilings with ribs rising to central panels from elaborate anthemion and palmette friezes.

The Writing Room has a fireplace with a veined yellow marble surround and tiled hearth with anthemion and palmette border centered on the north wall, with a later door to the west. The fireplace is enframed by paired fluted Ionic colonettes, rising to large end blocks carved with a shield motif, and a mantel with a bowed central section. The frieze beneath the mantel is carved with swags and ribbons. The door to the west looks recent and does not appear on early plans. Nevertheless, it has an original crossetted architrave and frieze carved with swags and ribbons. To the east of the fireplace is a glazed built-in bookcase which rises to chairrail height and turns the corner to continue on the east wall until it is interrupted by a newly introduced entry. An identical bookcase is located on the west wall, which also includes a window enframed by Adamesque pilasters.

The Reading Room is finished with mahogany wainscotting and includes a window on the west wall which balances that of the Writing Room. An original door with a frame identical to that of the Writing Room is located on the south wall, and once provided the only direct access to this double room. The most interesting feature of the Writing Room is a three part

cashier's window which originally opened onto a Post Office to the east. Rendered in mahogany, this feature consists of Adamesque corner pilasters and two paired, fluted, Ionic colonettes, supporting an entablature with molded architrave, frieze with shell, swag and ribbon motifs carved in high relief, and cornice with dentil course and egg and dart moldings. The three windows enframed by these elements consist of 1/1 sash with textured, leaded glazing. The former Post Office space has been entirely rebuilt and is now finished with painted concrete blocks.

Fourth Floor

The fourth floor of the Brigham extension was originally devoted almost entirely to committee rooms with a few exceptions such as the State Archives (present rooms 427-440), the State Library Gallery and adjacent stacks (present use remains the same), an Educational Museum (present room 444), and a Ladies Reception Room (present room 452). The original committee rooms are so designated onthe Brigham plans. Little further information is available to indicate the precise activities in each room. Many of the committee rooms remain as such, although others have been subdivided into office space for reporters and legislators. The spaces that remain as committee rooms tend to appear drab and uninviting today, due to imappropriate modern lighting, paint schemes and floor coverings. Nevertheless, many of their handsome original features remain and could easily be enhanced to improve the overall appearance of the room.

Although each committee room was unique in terms of its dimensions and combination of finishes, some generalizations about their original appearance can be made. Almost all had skylights centered in flat or vaulted ceilings with the most elaborate having carved modillion surrounds. Fashioned of wood, the skylights came in a variety of patterns including combinations of rectangles and diamonds or circles and squares, eight or five sided stars, double or single flowers, or concentric flowers. The skylights were lit from the roof through intermediary fifth floor attic spaces. It appears that the skylights have never functioned well, allowing water leakage and too much light. While most remain in place, they are almost inevitably painted out, and cease to make a positive contribution to their respective spaces. Repair of the source of leaks, removal of paint and installation of glare control or backlighting could reverse this situation dramatically. The skylights are a consistently significant spatial feature.

Fireplaces are another common feature of the committee rooms. They range from small examples with buff Roman brick faces and hearths, and simple oak architraves and mantels to larger compositions with marble faces and hearths, carved columned mantels and flanking bookcases. Intermediary examples have

terra cotta faces and hearths, some laid in a parquet pattern. Fireplaces are generally in good condition, although some have cracked faces or hearths, and some need to be cleaned of dirt, paint, wax or other recent finishes.

Early photographs show most committee rooms to have been carpeted in contemporary floral patterns which would have added warmth and color. The present linoleum tile found inmost rooms does nothing to enhance their appearance.

Early photographs also show globe and other type chandeliers and sconces in many rooms. These would have provided a warmer lighting than the present overhead fluorescent strips.

While light fixtures and carpets have disappeared from the committee rooms, many, surprisingly, retain their original oak furnishings. Typical pieces included moveable bullrings and benches with leather covered backs and cushions, as well as built-in, Adamesque carved bookcases and cabinets.

Tying all of these original finishes and furnishings together were the original color schemes of the rooms, a major factor that is easily reproduced. Paint research reveals that most rooms were painted in varying shades of dull green with tan or ochre trims, colors that reflected the mosaic tile of the corridor floors, and would provide a rich and interesting backdrop to natural wood trim and appropriate flooring finishes.

East and West Wings

The East and West wings are L-shaped in plan with double loaded corridors traversing their length and large office suites occupying their end pavillions. Always simply finished, they have been extensively remodeled since their construction in 1914. Thus, with few exceptions, little of architectural or historical interest remains. Significant spaces are described below:

Circulation Elements

The vertical and horizontal circulation elements of the East and West wings play an important role in defining architectural character as did similar elements in the Bulfinch building and Brigham extension. Not only are they the areas accessible to the public, they are also among the few areas which retain significant amounts of original finishes, although this varies from wing to wing and floor to floor.

Vertical Elements

Vertical circulation is achieved through well-detailed staircases located at the far end of each wing corridor and through elevator banks located approximately 2/3 of the way down each corridor on the north side. All rise, without interruption, from the basement to the fifth story.

The West Wing Staircase is similar in appearance, although more simply detailed, to its counterparts in the Brigham extension. It is fashioned of gray marble treads and risers with wrought iron stringers, newel posts, and ornamental balustrade and a mahogany rail. The stair rises in three runs set against the east, north and west walls, then curves elegantly to join the west corridor. The only exception to this occurs at the second story where it rises in two runs set against the east and north walls, then traverses a narrow balcony and rises in three more runs set against the east, north and west walls.

The East Wing Staircase is identical in materials and general appearance, but differs in configuration. It ascends in two runs set against the north and west walls for its full height and lacks the open balcony of the east stair. The only exception to this is at the second story where an extra two runs are inserted due to the exceptional height of the ceiling, and at the fourth story where both runs rise against the north wall.

The Elevator Banks consist of paired units set in plain black stone surrounds.

Horizontal Elements

The corridors are characterized by original finishes including gray marble tile floor with black borders and baseboards, gray marble wainscotting articulated by flat pilasters, rectangular black marble door surrounds and plaster walls. While these features have survived consistently throughout the wings, others have been heavily modernized, and remain only in scattered locations. Lofty plaster ceilings with molded or coved cornices have generally been obscured by drop panels with strip fluorescent lighting. Original ceilings remain in the

East wing at levels one, two (where it is exceptionally high with a coved cornice), and three.

Panelled and glazed doors, some wood and some metal, have frequently been replaced by high quality panelled oak doors. Original doors remain in the East wing at levels one and two, and in the West wing at levels three and four.

Other Areas of Interest

The East wing incorporates a Lobby/Information Area at the first story which can be entered from Beacon (S) or Mount Vernon (N) Streets and which provides direct access to the shortened corridor at the wing (E) and the Bulfinch and Brigham sections (W). The Beacon Street entry consists of three segmentally arched openings containing double leaf metal doors headed by 10 pane transoms. The single Mount Vernon Street entry, which is aligned with the central Beacon Street entry, consists of an inner rectangular opening with glazed sidelights and transom from which five steps descend to an outer entry consisting of a double leaf metal door headed by a five pane rectangular transom and a round arched fanlight. The lobby itself is finished with gray marble walls articulated by a shallow, stylized rustication and Tuscan pilasters, a gray marble floor with paired black lines aligned with the pilasters and four squared columns which are evenly spaced in the center of the lobby. Shallow moldings divide the plaster ceiling into panels which reinforce the bays established by columns and pilasters.

The Governor's Suite, located on level three of the West wing (rooms 379-383), also retains early finishes but these were unique. They include Federal Revival door frames, chair rails and wall panels designed to complement such features in the adjacent Bulfinch building. Marble fireplace surrounds with Ionic Colonnettes are actual Federal period material salvaged from townhouses demolished to allow construction of the wings.

4.3 Site Conditions

Beacon Street, east to west

Above the granite wall along Beacon Street, surviving holes indicate the location of iron fence posts. A privet hedge runs above the wall except at the corner of Bowdoin Street. On the lawn at this corner are a yew, a mockorange, four lindens, and a border of annuals [1]. The concrete paving below the Hooker monument is cracked. One of the granite steps leading from the monument to the east entrance is out of alignment. There are hazardous wide cracks in the granite plaza. The seven cherry trees on either side of the plaza were pruned on October 16, 1984, as were most of the trees on the grounds, by students in the Urban Forestry Program, University of Masachusetts, Stockbridge School. The trees would benefit from feeding.

The grass on the east side of the steepest terrace [2] is in excellent condition, indicating that grass could satisfactorily replace the yew along the south banks. Even if the yews are retained, they should be pruned regularly to conform to the bank. The bluestone approaches to the flagpoles are bordered by yellow marigolds. More marigolds, white petunias, and ageratum surmount the steep bank below the Mann and Webster statues. The top runs of granite steps show cracks, and need resetting.

By the Alexander Parris gate, as well as by the two gates to the west, are clumps of lilac, some zealously overpruned. The concrete pavement of the sidewalk plaza by the Parris gate needs repair [3].

The allee of trees along the walk to the west entrance are mostly little-leaf lindens, but two have been replaced by large-leaf lindens, which detract from the formal effect. The steps down to the Archives Museum entrance are hazardous, owing to one projecting step. The granite plaza by the west entrance is bordered by unsightly rough grass and nothing else. The edging of one manhole is broken, exposing a dangerous hole. The lindens surrounding the Hutchinson statue have recently been pruned to display the monument.

More lindens line the approach to the Lodge statue. The shrubs by the steps at Beacon Street have been severely pruned, but will recover. One of the hawthorne trees behind the Lodge statue is sickly, and should be removed. The small spruces are former Christmas trees which have been planted on the west lawn; a nice idea, but one which should be discouraged at this historic site. Two black walnuts are growing well [4]. Several volunteer seedling trees were removed on October 16. The lawn west of the State House is in poor condition [5].

The cracked concrete retaining wall below Mt. Vernon Place [6] is bare and ugly. Perennial vines would improve its appearance. A bird bath and spring bulbs have been set out by a neighborhood

resident on the steep bank behind the concrete pad, below the Mt. Vernon Street fence [7].

Mt. Vernon Street, Hancock, and Derne

The hedge of yews behind the west wing [8] provides the only greenery along the Mt. Vernon and Hancock facades of the State House. Portions of pavement and balustrade along Mt. Vernon Street are cracked. Hancock Street is bordered by a deep areaway, and a sidewalk two feet wide interrupted by lamp posts [9]. The iron fence shows some rust, but is basically sound. Granite steps lead down to a locked door. The broken top step is hazardous. At Dearne Street, an angled corner of areaway holds standing water [10]. Weed trees are growing through a light well.

The Parking Lot

The handicapped ramp from Mt. Vernon Street is cracked [11]. The balustrade along the east wall of the State House extension has been repaired. Around the base of the Beacon Monument, the concrete shows cracking [12]. The locked iron gate at Ashburton Street is rusty and needs repainting [13]. The shrubs beside the gate are unkempt. An area mulched with broken stone, overgrown with weeds, merges into a poorly-maintained lawn area above Derne Street. Birch, ailanthus, maple, linden, and elm trees of varying conditions grow along the slope. The granite steps from Derne Street are in good condition, but one entire section of balustrade near the parking area [14] has fallen away.

SUMMARY OF SURVIVING LANDSCAPE ELEMENTS

Period I (1795-1867)

-Shaved grass banks & terracing (1795 with alterations 1833).
-Granite wall on Beacon St., Parris gate & steps (1824-1826).
-Solomon Willard arch at gate (1833).
-Statue of Webster (1859).
-Statue of Horace Mann (1865).

Period II (1868-1888)

-Ornamental flower beds (1880s) - tradition remains in a different form.

Period III (1889-1912)

-Derne Street steps, balustrades, and Ashburton Street gate (1896-7).
-Beacon Hill monument (1898).
-Equestrian statue of General Hooker (1903).

Period IV (1913 to the Present)

-East wing entrance plaza and allee of trees (1915).
-West wing approach gate, and linden trees (1919) - part of this approach survives.
-Hutchinson statue (1922).
-Spanish War cannon (1923).
-Statue of Lodge (1928).
-Statue of Mary Dyer (1945).
-Privet hedge on Beacon Street (1940s) - replaced iron fence.
-Parking lot (1950).
-Concrete vault on west lawn (1950).
-Flagpoles and walkways (1955).
-West wing entrance plaza (1958).

4.4 Exterior

All three sections of the State House: Bulfinch building, Brigham extension, and Wings are built and trimmed with masonry, brick, granite, marble, and cast stone. Roofs are variably slate, for the Bulfinch building, or copper and built-up roofing, for the Brigham extension and the Wings. Wood frames and sash predominate in the Bulfinch and Brigham; metal clad sash and frames are found throughout the extension. Early and replica doors are wood; the Wings' doors are bronze clad, and several modern replacements in the Brigham extension are bronzed aluminum.

Masonry and roofing conditions, and site conditions were inspected and reported in two recent D.C.P.O. studies. For this section, masonry, structural conditions and landscape are the main focus of further elaborations. The Testing and Analysis section and Preservation Recommendation Chapter address numerous additional exterior elements.

Bulfinch Building

Brick

The brick masonry is in fair to good condition. Paint covered the brick from 1826 through the nineteen twenties and, when removed, revealed non-matching brick repairs and alterations. Principal areas of non-matching brickwork resulting from the nineteenth century alterations and restorations are noted at the back of the arcade, around the second floor central windows on the east and west elevations and above the first floor windows. Abrasive methods of paint removal and weathering have caused a limited number of bricks to spall, principally at the attic level and on the face of the colonnade. However, the presence of soft and spalled bricks was recognized as early as 1826 when a mason was engaged to remove bricks unsuitable for receiving paint. Some bricks have fine hairline cracks. Retention of early bricks on the building should be considered a high priority and use of harsh or unproved materials on this important fabric should be prohibited.

The Bulfinch brickwork has been repointed many times over the years and little, if any, of the original mortar is found on the exposed surfaces. The existing mortar is dense and hard and does not have the appearance or strength characteristics of Federal Period work. The condition of the mortar joints is generally good, with only a small percentage of brick joints showing deterioration, loss of bond or hairline cracks in the mortar. Areas showing the largest percentage of deteriorated joints include areas adjacent to downspouts, and below the first floor windows.

The Bulfinch brick is quite clean with only minor discoloration of the front arcade possibly caused by water entering through the colonnade floor above. During the 1983 painting project the arcade and other parts of the first floor brickwork were stained with residues of paints decomposed by alkaline paint removers. Very dilute solutions of brick masonry cleaners were used to clean the white residues from the brick and no aftereffects of this process are noted.

Remains of old paint are to be found on the north pediment, on brick contained within attic spaces and in fragments on chimneys as well as on the roundels and attic story pilaster capitals. Preservation of this record of early paint history of the building is of great importance.

Granite

The Quincy granite was installed at the basement story in 1855 and later altered in 1881 to allow for windows on the south elevation. The terrace and basement areas below were reconstructed (including refacing of the rusticated granite to a flat surface and possible partial replacement of units) as part of the restoration of 1897 and the granite was sandblasted at the time of the State House extension in 1914. Although the stone is in good condition several thin cracks due to stress are noted, generally at the corners of the units. Numerous mortar joints in the granite are deteriorated, cracked or have lost bond.

Generally, the granite is dirty and stains from leaching cementitious materials are a special condition at the basement below the terrace in front of the arcade on the south elevation. Undoubtedly, the cementitious stains are the result of a long history of leaks though the bluestone terrace floor and waterproofing materials below. During December, 1984, a State House mason repointed the bluestone terrace floor and applied a water-repellant. Unfortunately, this treatment will probably be short-lived and a more comprehensive repair probably required.

On the west elevation the arches of the two southmost basement windows are retained by iron rods. Slippage of the arch is particularly evident in the southmost window arch.

Marble

The white marble beltcourses, lintels and keystones are in good condition, have few open joints are show little discoloration or soiling. Some of the stone dates from the terrace reconstruction of 1897 and records of the 1914 extension indicate that $650 was spent at that time to clean the " marble beltcourses, etc.".

Miscellaneous Masonry Materials

The four roundels on the face of the arcade, which date to the original construction of the Bulfinch Building, have been painted for most, if not all, of their life. Although the nature of the material of their construction has not been verified, they are described in 1914 newspaper reports as being of gray Italian soapstone but other information would suggest that they are a nineteenth century artificial stone. The 1983 repainting removed loose and flaking paint and repainted the surface. Brief examination by this writer prior to the repainting found a coarse, gray material with variation in color not unlike the veining of a natural stone.

There are eight painted masonry column capitals at the attic level. (Note that three more of these capitals with some paint coating exist within the attic space created by the Brigham addition.) These capitals are possibly early examples of terra cotta use in the United States and are in good condition although some minor damage in the form of nicks is evident.

The flooring of the colonnade at the second level is slate installed in the 1950's. The slates at the front edge were relaid in 1983 to eliminate leakage through the floor. Stains appearing on the upper parts of the faces of the arcade arches suggest that some water may still be entering the masonry through the floor.

Brigham Extension

Brick

The original specifications describe the exterior walls of the Brigham addition as "largely hollow" and built of a facing 1/2 brick thick. Further, the yellow brick was to be bonded every fourth course with headers and stretchers. However, it is noted that in almost all areas the brick is set in running bond which does not appear to correspond to the description in the specification. Further investigation involving removal of brick would be required to verify the method of construction, and such testing should precede repairs. All face brick was specified to be set in lime putty tempered with cement and pointed with colored cement putty finished with a beaded joint. The exterior elevations are faced with a yellow brick while the courtyard and light court above the hall of flags, as well as the driveway off of Derne Street, are of Perth Amboy buff brick.

Generally, the yellow brick is very dirty and this makes the determination of the extent of mortar deterioration difficult, since close inspection was only possible where access via colonnades, etc., was available. The current general inspection shows that although special areas, such as adjoining downspouts, show many open joints, the overall condition of the mortar joints is fair to good. No spalling and little cracking of the yellow face brick is noted although a single unit is missing above the second floor at the Bowdoin and Derne Street corner. The mortar is very dirty on its surface, but is near white below the dirt. No evidence of the specified beaded tooling or colored cement putty could be found.

A limited area of the yellow brick on the east side extending from the intersection with the Bulfinch to just to the right of the parking lot entry opposite Ashburton Place was cleaned in the

late 1970's using chemical cleaners and sections in this area were pointed as well using a dark gray mortar. In 1975, the rear pediment tympanum was repointed to correct the poor condition of the brickwork due to long term leakage through roof areas (Project G74-6 No.1).

The buff brick in the courtyard and light court is in very good condition having been chemically cleaned, repaired and repointed under project G74-6 No. 1. Limited areas of brickwork below a few windows show some resoiling.

A small area of buff brick in the driveway area leading from Derne Street into the courtyard is in hazardous condition apparently as the result of having been hit by cars and trucks. Note that this section does have bonded headers.

Marble

The white marble on the Brigham extension, with the exception of the first story marble ashlar, the balusters and the balustrade cap, is from Lee, Massachusetts. The first story was originally designed to be of yellow brick and the balusters and cap were to be copper. A suggestion of the architect, hoping to present a more monumental building, resulted in changing the construction material to marble. The marble for the added items was bid separately and the Vermont Marble Company, with quarries in and around Proctor, was low bidder. William Gray of Lee, the successful bidder in the first round, asked a higher price and the Commissioners seemed not to have been concerned about securing all of the stone from one location.

The original specifications call for the marble to be set in lime putty with fine joints in the tympaniums and 3/8" elsewhere. After setting the joints were raked 1/2" and pointed with lime putty. Ornament, such as window surrounds, was carved in the stones after setting.

In 1914, the Fitchburg Sentinel, reported that the "Lee marble ... is so very susceptible to Boston weather and smoke from soft coal that the white luster has long since entirely departed and the columns are only a dingy, grimy, gray, which is very far from a white building." The Springfield Republican of the same year called the marble "disintegrating and crumbly". Although these writers may not have been aware of exactly which marble on the Brigham addition was actually from Lee (and since they were were lobbying for the use of Vermont Marble for the wings), it is clear that some of the current conditions were apparent long ago.

The present overall condition of the marble masonry of the annex, because of extensive decay of the joints, is poor. Many conditions of failure, some potentially dangerous, and many

allowing for accelerated damage to the masonry and/or other building systems are found. Except as noted below, the marble is unpleasantly dirty. In addition to black and gray areas typical of dirt bound in gypsum coating the marble, specific stains include metallic stains (principally copper from flashings and iron from air conditioners) and bird excrement. The following conditions were noted during inspections from the ground using binoculars, from roof areas and from the second floor colonnades:

1. Cracked lintels at the second floor colonnades are noted at the ceiling on the east side above Mt. Vernon Street, above the Ashburton Street entrance, at four locations at the west end of the Derne Street colonnade, at two locations at the north end of the colonnade north of the House of Representatives chamber and in one location on the face and one on the ceiling of the west side Mt. Vernon Colonnade (note that the last of these was noted in the 1958 report of Guarino (see "Previous Studies and Building Programs Relating to the Masonry") and apparently not been fixed since).

2. Three cracked window lintels are noted on the first floor above the east side of the Mt. Vernon Street drive-thru. (Guarino notes "approximately four") Cracks are also noted in first floor marble window lintels at the middle window of the northmost bay of the east elevation and on the east side of the Derne Street projection.

3. All joints in the projecting marble beltcourse above the first floor, except on the east side between the Bulfinch building and the Ashburton entrance, are completely void of mortar. With the exception of the entablature which was repointed in the mid-nineteen seventies and the first floor marble ashlar, all of the other marble joints including trim around windows, roof balustrade, cornice and tops of pediments are in poor condition showing deteriorated mortar, hairline cracking and loss of bond. As the cramps holding the marble to the backup were specified as set in lime and plaster of paris, it is possible that the water infiltration through the open joints has damaged the attachment of the ties (see 4. below regarding loose section of beltcourse).

4. Cracks are noted in many locations on the flat freeze and projecting sections of the beltcourse above the first floor on all elevations. On the west elevation north of the colonnade adjacent to the House chamber, one arched window head is cracked and another has a brick-size piece missing. Portions of the belt between second and third floor below the House chamber have been patched (Mass. Project No. G 803 (1956) because they were determined to be loose.

5. Marble roof balusters remain along the east elevation and along the east side of the Derne Street elevation, the rest have been replaced with precast concrete. The remaining natural stone roof balusters are badly eroded with heavy black deposits along the back sides. All engaged balusters at the third floor are in poor condition and balusters are missing in several locations along Hancock Street. All of the pointing at the roof balustrade shows loss of bond between mortar and masonry.

6. Many of the colonnade columns show old repairs and erosion of detail at the flutes. Although some erosion is noted on the fine decoration including window trim and column capitals, the condition of the stone is generally fair to good with respect to the level of preservation of the carving detail (in fact much better than the writers of 1914 would have predicted).

7. The entire cornice molding, including dentils is in poor condition, with conditions most severe above the House chamber and at the north end of the west elevation were organic growth is evident in addition to the ubiquitous green copper runoff stains. An active leak resulting in staining of the stone is noted in the upper section of the cornice on the return wall south of the House and adjacent to the west Mt. Vernon Street colonnade. A modillion is missing below the pediment on Derne Street and organic material stains the belt between first and second floor on Derne Street.

8. The marble has been subjected to several remedial treatments over the years that have caused unsightly conditions and/or accelerated deterioration.

a. On Derne Street the marble has vertical cuts in the first course of stone above the joints of the granite foundation. These appear to be saw cuts as a result of lack of control of the saws used to cut and rout the granite joints below for repointing.

b. Extensive areas of the marble have been sandblasted including the entablature, areas of ashlar near the Ashburton entrance, stone under the Mt. Vernon drive-thru. Although the first floor ashlar along part of Bowdoin Street was chemically cleaned within the past few years, all other bright marble on the building has been sandblasted. This process has roughened the surface and exposed coarse mineral grains which weathered away in some locations leaving pocks in the surface.

c. Areas of the entablature have been skimmed and patched with epoxy and marble dust. Much of this skim is poorly adhered and is discoloring due to exposure to ultra violet light; it may also be acting to trap water and thus accelerate deterioration of the stone binder.

d. The handrails and areaway, step and porch balusters opposite Ashburton Place have been coated with an unidentified white coating applied in an attempt to provide a clean appearance. Again, the coating may be trapping moisture and must be removed to allow proper masonry cleaning.

Granite

The basement and exposed sub-basement of the Brigham extension, as well as retaining walls of areaways, were originally specified to be constructed of granite provided by the Hallowell Granite Company and laid up in a cement mortar containing no lime. Hallowell, Maine granite was also used in all phases of construction of the Maine State House in Augusta and in the construction of the New York State Capital in Albany. This granite is more fine grained than the Quincy, Massachussetts granite used to finish the basement story of the Bulfinch section and has laminar mica inclusions.

In several areas thin sections of granite parallel to the stone surface have sheeted away. This type of deterioration, often called spalling, is common on Hallowell granite and appears to derive from several sources; namely, crystallization of soluble salts within the pores of the stone, freeze-thaw action of water within the pores of the stone, thermal stress due to temperature changes, and weakness of the stone surface caused by the method of finishing. The spalling is accelerated by continual dampness in the stone and abrasive treatment, such as sandblasting, and control of these conditions will help to limit the extent of spalling. The slow weathering of the Hallowell granite should not be considered as a serious problem and at present there are no methods or materials, other than control of aggravating forces, that would be considered as effective and proven treatments.

Except for the southern section along Bowdoin Street where the granite, as well as the marble, has been chemically cleaned, the granite is very dirty. Limited areas, principally at the drive-thru, have been aggressively sandblasted with extensive disfigurement where the tooled stone surface has been unevenly shot away.

Limited cracking of the granite blocks, principally of corners near windows and through window lintels, is noted and stress

cracks running the length of the basement and sub-basement levels are seen along the northmost bays along the east side. Damage due to traffic is noted at the arched driveway entrance along Derne Street.

Although the granite has been spot repointed several times, pointing is only in fair condition with many open, deteriorated or unbonded joints, particularly at the watertable course at the top of the basement.

East and West Wings

Marble

The marble for the wings is from the Danby-Proctor, Vermont marble quarries, the same stone used for the first floor ashlar and balustrade of the annex. The marble was laid in a white cement mortar, containing no lime, and coated on all unexposed faces, to within a 1/2" of the face, with a damproofing material. Similar construction is noted in the Maine State addition of 1910 designed by Boston architect Henri Desmond. Although this technique seems to have been common practice of the time, the waterproofing materials presumably were some sort of asphaltic compound and this would create an adhesion problem for the mortar. The joints of the marble ashlar and cornice of both wings are in good condition with few open joints noted.

Extensive repairs were made on both East and West wings in the 1960's and 1970's and the current condition of the marble masonry is better understood with review of these work programs. References and general descriptions of these projects is provided in the section entitled " Previous Studies and Building Programs relating to the Masonry", included in the Team File.

During the current inspection, made from the ground with binoculars and from the roof, two areas of possible structural distress were noted on the West wing. At the top of the southwest corner patched and displaced stones were observed. On the west side of this corner one ashlar stone at the second course below the entablature has a very noticeable bulge. Guarino noted loose stones in this area in 1958, but despite the repairs of the 1960's, a continuing problem in this area is apparent. At the upper eastern corner of the projecting section along Mt. Vernon street, it appears that a cornice stone may be loose and the stone below has a piece missing. This corner is also called out in the Guarino report (Figure 23 of that report shows a crack where the piece is now missing) although review of the 1960's repair documents finds no reference to work having been done. Carroll also called out what looks to be the same condition and termed it as requiring immediate attention. A

cracked block is also noted on the east face of the southeast corner at the entablature.

Several cracks are note in the East wing cornice, many of which are noted in the old reports. Although previous repairs may be adequate, inspection from the ground shows areas of concern that require closer inspection. Obvious cracks in the cornice are found at the southeast corner at the bed mold under the modillions, in several spots above the southmost window on the east elevation and at the north end of the east elevation.

As a result of the 1972 Marble Study, the entire balustrade and cornice was repaired. This work included extensive realignment of the units, filling joints with mortar to within 1" of the face and topcoating with elastic sealant and introducing expansion control joints into the masonry. All of this work, which seems to be in very good condition with no obvious displacement of units or joint failures, was done using a black sealant. Unfortunately, the large black control joints are easily seen from the street. Weeps were also introduced at the base of the exterior entablature during this program of roofing and balustrade improvements. Rusted ties through the balustrade panels mar several stones on the East wing above the western entry door on Beacon Street and one stone at the Beacon Street west corner.

The roof balusters themselves are extensively eroded and have lost most of their detail. Some balusters are in danger of becoming loose or having sections fall away. Only a handful of units have been replaced with precast replicas.

Although the marble was abrasively cleaned in the 1960's, it has dirtied to a gray. Several ashlar blocks stand out as significantly whiter than the rest and it is believed that these are less porous units that have not picked up as quickly the common dirt/gypsum layer found on most dirty outdoor calcareous stone surfaces. The blackest areas of the building are on Bowdoin Street near Beacon and on window heads, capitals and other sections not washed by rain. The dirt patterns on Bowdoin Street are a function of the way wind-driven rain washes over the building with the washed areas the whitest. It is interesting to review the Guarino photographs of these areas in 1958 to see that they were extremely dirty and streaky before the abrasive and steam cleaning followed by refacing of the 1960's.

Some metal stains on the wings have obvious causes, such as the green stains from the bronze windows and brown iron stains below applied brackets, signs, lanterns, etc. Of concern are pinkish stains seen in several locations including on the Beacon Street side of the projecting section of the West wing at the fourth floor, at the entablature of the south elevations of both East

and West wing sections connecting to the Bulfinch, and on the north elevation of the East wing connector above the second floor. These pink stains are possibly due to deterioration of imbedded metals.

On the south end of both East and West wings water pools on the small balconies at the second floor. Failure of the water to drain from the marble is causing the decay to the bottom of the wrought iron balcony railings.

Granite

The basement and exposed subbasement levels are faced with Hallowell, Maine granite, the same stone used for the basement of the Brigham extension. The granite was set in a cement mortar. Although the stone has been repointed several times over the years, many joints are deteriorated or have lost bond, particularly on projecting and watertable courses.

Spalling of the granite is noted in many locations. This flaking of thin layers of the stone is similar to that found in the annex and is described in detail in that section. Many blocks show darkened sections (usually ring-like blotches) that are characteristic of stains caused by the continuous presence of dampness in the stone. Generally, these damp areas are in contact with the earth or in areas where rain water or snow accumulate. Frequently, these spots are not completely removed by chemical cleaning and it is suspected that they are the result of a change in the texture or finish of the surface.

The archives building under the West wing courtyard shows evidence of water penetration on its exposed south facade and on the granite paving above the structure. The staining described in the previous paragraph is found on much of the exposed part of this building.

The threshold stone of each of the three south doors of the east wing is cracked. Displacement of both the thresholds and interior marble flooring is noted. Rusting of supporting steel members due to water penetration is suspected.

Masonry Site Features

As a general statement, all masonry site walls, porches, areaways and balustrades are in poor and, in some areas, hazardous condition.

The main granite steps to the Bulfinch, as well as the heavily used Beacon Street steps to the East wing show displacement of many units due to water penetration though joints that are almost

all open. The risers are high and uneven leading to a condition that could easily lead to injury to users.

The granite wall along Beacon Street is very dirty, many units are displaced and joints are in poor condition due to water penetration. Similar conditions are noted in the areaways surrounding the basements of the East and West wings. The rear entry porch of the East wing collects water that remains for many days following damp weather. The areaways on the rear of the East and West wings, as well as those on all elevations of the annex are very dirty, have little (if any) serviceable mortar in the joints and show displacement of some granite units.

Although the granite balustrades on site walls are generally in fair condition, the marble balustrade on the east side of the annex, both at the Ashburton entrance and on top of areaways is in poor condition. Balusters are very eroded, in some areas blackened, and in other areas coated with a sloppy white coating. The high retaining wall along Bowdoin and Derne is in the same poor condition with organic growth noted in the joints and some marble balusters have been replaced with several generations of poor looking precast units. Some very deteriorated marble balusters remain at the north end of the wall along with holes marking missing units and sections of the balustrade cap are loose.

Recommendation for Site Masonry

Extensive repair of site masonry is required to preserve the integrity of walls and to provide for the public safety. For recommended repairs to site masonry the reader is referred to the Preservation Recommendations in this study and to the section of the previous study dealing with site condition and landscaping prepared by Douglas B. Footit and Associates, landscape architects (ref. Mass Project No. G82-4(R).)

PREVIOUS STUDIES AND BUILDING PROGRAMS RELATING TO THE MASONRY

1. Massachusetts State Project G 803 (1956), Edward Sears Read and Associates.

The work undertaken included repairs to cap stone outside Room 251 of the annex, resetting part of loose string course above, installation of 78 new cast stone balusters of same size and quality as existing ones (cast stone). Application of "silicone" dampproofing materials in the repair area adjacent to Room 251 was specified.

2. Report and Recommendation for Repairs to the State House, John Guarino, Architect, (1958).

Report of masonry conditions, excluding Bulfinch, with photographs and recommendations for repairs. Report recommends redesign of the parking lot entrance to the annex via removal of the portico, removing the roof balustrades from the wings and annex as well as from the retaining walls along Bowdoin and Derne Streets.

This report recommends sandblasting and repointing the granite on the East and West wings; steam cleaning and repointing the marble. Open joints and cracked blocks at the corners of the cornice were reported to require immediate attention. The balustrade on the wings is reported to have open joints, dislodged stones and the balusters are described as "weather beaten and spauled."

The annex masonry is described as discolored and stained with soot. Although the brick masonry is generally considered to be in good condition, many open joint in the granite base course, marble cornice and balustrade and on some pediments are noted. The rear brick pediment on Derne Street showed disintegration related to severe deterioration of the roof and structural steel above the Library. Four cracked window lintel stones are noted on the Bowdoin Street side and a structural crack is noted on the west elevation lintel beam at the balcony over the drive-thru.

Repairs recommended for the annex included sandblasting granite, steamcleaning all marble and brick and repointing all open joints. Repairs indicated include replacement of cracked lintel stones and resetting of the entire balustrade with new balusters, if the balustrade is to be retained.

3. Specifications for State Project No. G-59-2 Contract No.1, Improvements and Masonry Repairs Ashburton Entrance, Peter Hajian Associates (1963).

This work specified the redesign of the Ashburton entrance and the removal of the original portico recommended in the Guarino report. The work undertaken included sandblasting and regrinding the marble at the first floor to eliminate stains and spalls and repointing of the stone.

4. Preliminary Report and Recommendations for State Project No. G-59-2 Contract No. 2, Exterior Masonry Repairs, State House (East and West Wings), Symmes, Maini & McKee (1964)

This report is largely a repeat of the Guarino report with very similar wording. Recommendations again are a repeat but augmented by the recommendation of a silicone type waterproofing for the wings and the use of caulking on the marble cornice joints after they have been regrouted.

Review of DCPO files indicate that the work scoped in this report and including repairs to East and West wings was started in 1966 under G 59-2 Contract #2. Project records indicate that the scope of sandblasting and refacing was expanded to include all of the marble on Bowdoin street and many area of cornice that would not clean with steam. Waterproofing seems to have been omitted on the East wing to compensate for addition costs associated with added repointing. This work continued into 1967 but seems to have stopped before the completion of work on the East wing. This work was supervised by Symmes, Maini & McKee, Architects and Engineers.

Contract G 59-2 Contact #3 completed the work on the East wing in 1968 with repointing, some baluster replacement and caulking the cornice. It appears that the waterproofing cut out of the earlier contract was not put back into this work. This phase of the work was supervised by the Bureau of Building Construction Engineers

5. Study of the State House Roof, Massachusetts State Project No. G-69-3, Part II (1971). Carroll and Greenfield, Architects

In addition to a detailed analysis of the roof, this report contains information about the condition of and recommendation for repair to masonry elements of the complex. With respect to masonry, the East and West wing balustrades, from cap down to base stone are described as in an advanced state of deterioration. Sealant joints are in failure, the balusters

profiles have eroded and the base flashing under the balustrade is suspected as being responsible for water entry into the building.

6. Marble Study Program, report to Carroll & Greenfield, Architects, John H. Gibbud, January, 1972.

Test measurements made by Worcester Polytechnic Institute Civil Engineering Department with calculations of thermal expansion coeffients, absorption and specific gravity data. These tests formed basis for introduction of expansion joints in cornice and balustrade of the wings. Physical characteristics of the weathered marble are determined to be similar to that of new, unexposed samples taken from the Vermont Marble Company quarries.

7. Alterations to East and West Wings and Exterior Wall Areas, Carroll and Greenfield, Architects, Project G69.3 No. 1.

This project included reroofing the east and west wings, resheathing penthouses, replacing penthouse windows as well as repairing balustrade and cornice and introducing expansion joints and weep holes at the bottom of the entablature. Marble in the work area was cleaned by techniques that included grinding the base stone and "sanding and watering" the interior face. Further cracks in the stone, as well as lift pin holes, were filled.

8. Renovations to Annex Roof, Paul J. Carroll and Associates, Project G74-6 No. 1, 1975.

Repairs to entablature (and on some elevations up through cornice) of the annex including repointing and patching marble with epoxy/marble dust. This project also included pointing the courtyard and light court above the hall of flags, as well as the brick pediment above the State Library on Derne Street.

9. Study for Exterior Repairs, Improvements and Masonry Restoration: Site Conditions and Landscaping, Beacon Architectural Associates, Project G82-4(R), March, 1984.

Illustrated general review of conditions.

4.5 Existing Conditions: Interior Condition

Introduction

The intent of this narrative is to describe existing physical conditions within the State House, both verbally and through reference to a collection of slides. The narrative will concentrate upon the non-ceremonial spaces of the State House, primarily located in the East and West wings and the Brigham extension. The Bulfinch building, examined in depth elsewhere in this report, will be dealt with only cursorily in this section. The narrative will discuss rooms both individually, and collectively when a number of spaces are contiguous and similar in condition, in order to present a representative sampling of interior spaces. For the sake of brevity and focus, not all the rooms surveyed will actually be mentioned in the text, although information about them can be found in the Team File. Throughout this section, an attempt will be made to highlight both areas and individual features of architectural significance.

Methodology

The information presented here has been gathered during an extended, systematic building survey. Over a period of three months, we visited all accessible spaces in the State House, from the coal pocket in the sub-basement to the cupola atop Bulfinch's gilded dome, approximately six hundred rooms in all. For each space, information was recorded in three different formats. First, current use, architectural finishes, physical condition, and notable features were all recorded on a standardized form. Representative slides were taken of each room, to document finish materials, characteristic architectural features, and any evident damage, for the photographic record. Finally, all existing partitions within the spaces, both partial and full height, were noted on a set of base plans, and from these the existing conditions floor plans, which accompany this report, were prepared. The information forms and slides remain as a permanent part of the Historic Structure Report record.

Sequence and Room Numbering

The rooms of the State House are numbered sequentially from the sub-basement to the fifth floor, and consecutively in a counter-clockwise direction around each floor. Rooms 1 to 12 are in the sub-basement, 15-99 in the basement, 100-199 on the first floor, and so on. The numbering begins in the basement at the grand stair hall of the Brigham extension, and on the upper floor at the junction between the Bulfinch building and the East Wing. For ease of reference, this order will be

followed in the narrative.

Sub-Basement

Brigham Extension

At the sub-basement level, the rooms of the Brigham extension are primarily used for storage, and housing mechanical equipment and building services. The finishes of these spaces vary widely. Beginning outside Room 1, the corridor has glazed brick walls, a simple plaster cornice and flat ceiling and a polished concrete floor with marble base. Several metal desks and an old wood skylight tracery panel, apparently from the fourth floor of the Brigham extension, are currently stored in this corridor. Rooms 1, 2 and 2a constitute a general supply room, where documents and paper supplies are stored on large steel shelves. Unlike the corridor, both walls and ceiling here are faced with plaster. A single, cast-iron Doric column is centered in the main room, and the office (Room 1) has a Roman brick fireplace with stained wood mantel typical of secondary rooms throughout the Brigham wing. Within this collection of rooms are two masonry-enclosed vaults and two lavatories. The spaces are lit by exposed fluorescent strips suspended from the ceiling.

Room 3, across the hall, is currently used for paint storage. The room is distinguished by its marble floor, in deteriorated condition and ceiling of exposed iron beams with brick vaults spanning between them. Next door is the key shop, Room 4a, finished like the corridor. The steel door opening to that corridor is spanned by a stone lintel.

Room 5a, formerly a mechanical space, has been subdivided with homosote-faced partitions into a darkroom, a photo-set room and a carpentry shop, all designated for use by the Secretary of State's staff. Mechanical space M3, a one-story structure within the volume of the courtyard, houses two large chillers and the snow plow. The space is one story high and has a concrete floor, yellow brick walls matching those of the courtyard and a light iron framed hip roof, sheathed in copper. Mechanical space M4 is adjacent to this large room and opens directly into it. It contains furnaces, electrical and mechanical control rooms and lockers. The thick walls are faced with glazed brick, and are characterized by arched doorways. Along the east perimeter, beneath the House of Representatives chamber, the huge rough-faced granite blocks of the foundation wall are clearly visible.

To the west of Room M4, connected to it via a tunnel, is the coal vault beneath Mt. Vernon Street. This is a double height space, with a brick arch and iron beam roof structure supported on a metal column and beam network, with one continuous row of brick piers and arches, running west to east. Tracks in the floor, for the coal carts, still run from the vault, via an open elevator, into Room M4.

Along the north corridor, which has two cast iron Doric columns, Room 9 is the Assistant Superintendent's Office. The finishes include a 2 x 4 acoustic tile ceiling, wood panelling and an inexpensive carpet. Room 11 is currently used as electrical shop, with a vinyl tile floor, plaster walls and ceiling, suspended fluorescent lights and wood shelving along all walls. Room 12, use undesignated, has painted brick walls and ceiling arches and a vinyl tile floor.

East Wing

The sub-basement level of the east wing contains the Gardner Auditorium, the main floor of which can be reached by a stair and elevators from the gallery level above. The auditorium was renovated in the late 1960's. It is rectangular in plan, and the floor is raked in three directions from a podium along one of the long sides of the space. A light wood extended desk sits atop the podium, accommodating 17 panelists, and the theater-style seating throughout the auditorium is upholstered in a gold colored nylon fabric. The floor is carpeted, and the plaster walls and piers are trimmed with simple wood moulding. Along the southern wall, the plaster has begun to crack, and the paint is peeling as well. The room is lit by prismatic fluorescent fixtures recessed into the rough textured plaster ceiling panels. Finally, the auditorium seats 450 people on the main floor, and another 200 in the galleries along the short sides of the space.

Directly to the north of the auditorium are two mechanical spaces, supported by columns, containing large oil tanks and civil defense supplies. Moving toward the Bulfinch building, one passes through a fan room, into a columnar space whose floor slopes up to the rubble foundation wall of the Bulfinch building.

Bulfinch Building

The Bulfinch building itself has only an inaccessible crawl space at the sub-basement level.

West Wing

Beneath the terrace immediately to the south of the west wing are two floors of vaults, the upper assigned to the State Library, and the lower to the State Archives. The two vaults share a common set of finishes: resilient tile floors, vitreous tile walls, and low plaster ceilings to which fluorescent strip lights are directly attached. Materials are stored in metal flat and lateral files, as well as cardboard boxes to handle the current overflow. The staff emphasized a number of problems with the suitability of these spaces for the storage of valuable, delicate materials: a persistent leak at the base of the elevator in the northwest corner, a sump pump that periodically breaks down, and temperature and humidity controls which are ineffective.

To the west of the vaults, accessible only either from directly above, or through a tunnel from Mechanical Room M4, are the stacks of the State Library Special Collections. In an extended space supported by concrete columns, which rises through both the sub-basement and basement levels, a system of metal shelving, and metal and glass slab mezzanines has been introduced. A number of heating and cooling pipes run through the space, and those along the western leak noticeably. Also, the foundation wall and the roof drains in that area leak as well, leading to significant deterioration of the plaster walls. Finally, a number of the wooden sindow sash along both the south and west walls have been broken. As a result of these problems, the fluctuating humidity levels in the stack area are causing the books in storage there to deteriate unduly.

Basement

Brigham Extension

The offices of this wing, devoted to various commissions and committees, are on the whole quite uniform in their condition and level of architectural finish. Typical materials include:

a. Plaster ceilings, occasionally with elaborate plaster cornices;
b. suspended indirect fluorescent light fixtures;
c. painted plaster walls;
d. oak doors,
e. transoms and sidelights with etched or "frosted" glass,
f. medium-grade carpet.

Exceptions to this standard include Room 14, the Treasury, with its exposed brick walls, plaster-faced brick vault ceiling and concrete floor, and Rooms 33 A and D, which have mahogany wall panelling, and a new acoustic tile ceiling with air-conditioning supply grilles. The latter suite also contains two exposed, metal-clad Doric columns, as does Room 27B.

The corridors of this wing share polished concrete floors, glazed brick walls and painted plaster ceilings. Most of the wood-framed door sidelights have been infilled with painted homosote panels. The wide stairs which rise from this level at the north and south ends are typical throughout the Brigham wing, having white marble treads and risers, a painted decorative wrought iron balustrade and polished dark wood rails.

West Wing

This floor is primarily given over to the State Archives, and houses the Archives Museum. The museum is distinguished by its fine stone veneer walls, including fluted pilasters, and a dark stone base. Displays with integral lighting and polished brass

frames have been inset into the walls and built-in counters. A 1' x 1' concealed spline ceiling and a two-color terrazzo floor complete the finishes of the museum.

Rooms 48, 49, and 51 have also been assigned to the Archives as storage rooms, and all have resilient flooring, plaster walls and ceilings, applied strip fluorescent lights, and exposed heating and sprinkler pipes along the ceilings. Room 50 has similar finishes, and houses a large photostat machine.

Bulfinch Building

In this section, only two storage rooms are accessible, via the west stair. They presently contain Civil Defense supplies.

Brigham Extension, to south of Mt. Vernon St.

This area contains a series of store rooms, housing primarily books and documents on wooden platforms, and a locker room for maintenance staff. The central storage room contains four elaborate stained glass windows stored flat and standing. The windows need repairs but can be reinstated. Piping and ducts are exposed along the corridors accessing these storage rooms.

East Wing

The basement level of the east wing houses both offices and the gallery of the Gardner Auditorium. The offices, for the Sergeant-at-Arms and Senate Steno Pool, are very simply finished, with painted plaster ceilings and walls, suspended fluorescent light fixtures, exposed sprinkler pipes and vinyl tile floors.

First Floor

East Wing

The first floor of the east wing is distinguished from the other floors of the wing in that it incorporates a central lobby, which is at the head of an exterior stairway ascending from Beacon Street. The walls and piers of the lobby are faced in light veined marble, with some chipping being apparent at the exposed corners of the walls. Pilasters and a cornice molding articulate the lobby walls. A shallow coffered plaster ceiling reinforces the bays established by the piers. The floor is also polished marble, white in color with darker contrasting trim. This marble floor and a marble wainscot carry into the perpendicular corridor, which otherwise is finished in painted plaster. An open stair is located at the far end of the corridor, typical of both the east and west wings. The treads and risers of the stair are white marble, and its stringers, corner posts, and decorative balustrade are fashioned of painted wrought iron and the handrail is made of polished wood. The stairways are a prominent architectural feature and are generally in good condition.

The offices on this floor are simple, typically having resilient floors, painted plaster walls and ceilings, and pendant fluorescent lights. Room 109, currently the Executive Office of Human Services, is particularly interesting in that unlike suites in the same location on other floors of the east and west wings, it has not been recently renovated. Thus, its simple double-loaded arrangement of individual offices may have once been typical of these suites. The corridor running through the suite shares the plaster walls, crown molding, and ceiling, the wooden doors and transom sash, and the dark stone door casings of the main corridor, although not its marble wainscot or floor. The individual offices vary widely in their finishes, and some still have the glass and wood mullioned interior partitions found elsewhere in the State House, here opaqued with white paint.

Brigham Extension

At the first floor level, the Brigham wing is penetrated and split by Mt. Vernon Street, creating a vehicle underpass. A row of cast iron Doric columns flanks the street on either side, supporting a shallow riveted iron vaulted ceiling. North of the underpass, the first floor is a series of office suites accessed by a single loaded corridor, which surrounds a light court. Within the offices, a number of characteristic original architectural features have been preserved, such as fireplaces, interior windows, and coffered ceilings. Although the original arrangement of offices is still apparent, new partitions, either full or partial height, and openings have been installed over time as occupants and requirements have changed. These added elements are seldom as substantially constructed as the original work, and so can be readily distinguished as alterations.

Proceeding sequentially around the floor in a counter-clockwise direction, Room 123 exhibits a variety of typical features and conditions. The original plaster walls, crown molding, and ceiling all remain, but their effect is diminished by the introduction of suspended fluorescent pendant lights. The fireplace has also been preserved, although it is currently blocked up, and has a marble face and painted wood mantel. There are painted wood raised panel doors and wide wood moulded casings throughout the space. The room also has a new medium-grade carpet. The small storeroom opening off Room 123 has a mezzanine level, made possible by the seventeen foot floor to ceiling height. The mezzanine is framed in metal with an ornamental wrought iron balustrade and spiral staircase. Similar mezzanines can be found occasionally on the first, second and third floors of this wing. Originally serving as support spaces to the offices, for reference book shelving and storage, many mezzanines have now been enclosed to house air conditioning equipment.

In Room 126, the Bureau of State Buildings, another typical feature occurs: an arched entrance opening from the corridor,

with a semi-circular glazed transom above the etched glass and wood door. This door is flanked by two round-headed windows into the corridor which have etched glass as well. The corridor itself has white marble reveals and casings around such openings, a marble wainscot and applied pilasters, and a white marble floor with red stone trim and decoration. The walls, crown molding and ceiling are painted plaster.

Both Rooms 134 and 135 appear to have been once part of the corridor and were subsequently partitioned off with stained wood and glass doors and sidelights. The marble wainscot, door casings and trim continue into these spaces, as does the painted plaster ceiling molding. Also notable in this area are a row of cast iron fluted Doric columns framing into plaster-faced ceiling beams. These once freestanding columns now find themselves in one case butted into by partial height partitions (Room 136), or recessed into a substantial wall (Room 139).

Suite 146, made up of a series of long parallel rooms beneath the Representatives' Chamber, is one of few areas of the State House into which a modern "open office" partition system has been introduced, with fabric-covered partitions forming cubicles. Also, drywall and metal stud walls have been built to create four private offices.

In Room 156, assigned to the Massachusetts Black and Women's Caucuses, a series of individual offices have been partitioned from a single large space. One enters the individual offices through a seres of large arched openings, which give onto the marble-floored corridor running the length of the suite. Across the hall, Room 157 is currently used for press conferences. Much of the room's original detail has been retained: oak raised panel doors with frosted glass inserts and round-headed transoms, the classically detailed oak mantel, moulded wood door casings, and a plaster crown moundling. The fluorescent strip lamps and plastic chairs stand in marked contrast to the character of these remaining details.

Finally, opposite the entrance from Mt. Vernon Street, the main stair ascends toward a stained glass window giving on to the courtyard. This stair is similar in detail and materials to those open stairs already described, but is distinguished by the three Doric columns to either side of its base. In an example of supercolumniation, two Ionic columns stand directly above these three at the second floor level, with a single Corinthian one above them at the third floor.

Bulfinch Building

The rooms of this wing, although disparate in use, are characterized by a standard set of materials and finishes. Room 184, the Governor's Council suite, is typical with its plaster walls, crown molding and ceiling, painted wood door casings and fireplace mantels, inexpensive carpeting, and

pendant fluorescent lights. Room 183, a part of the same suite, is divided into cubicles by a set of metal and glass banker's partitions.

Rooms 189 and 192, both storage rooms, depart from the aforementioned standard. Only roughly finished inside, they each contain a variety of exposed pipes and ducts, as well as visible cast iron beam and brick arch structures supporting the main exterior stories directly above.

West Wing

The offices in this wing are primarily assigned to the Governor's staff, and with two exceptions, share a common set of office standards. The spaces have been updated through the addition of acoustic tile ceilings with fluorescent lights or incandescent down lights, new raised panel wood doors, and medium-grade carpeting. The original plaster-on-lath walls, metal-framed double hung windows and dark stone door casings have been retained.

The first exception to this standard is Room 167. Following an extensive renovation, the space now contains a series of perimeter offices, enclosed either by drywall on metal stud partitions with extensive glazing in aluminum mullions, or partial height wood-panelled partitions. Across the hall, Room 166 has similar wood-panelled partitions, and a matching carpet to suggest that it was renovated concurrently with Room 167.

Second Floor

East Wing

The cffices of the second floor of this wing are, in general, assigned to staff and members of the Senate. In terms of architectural finish, condition and date of renovation, they vary widely. Suite 212, occupying the end pavilion, appears to have been renovated most recently. The 1 x 1 concealed spline ceiling acts as an indirect light source, illuminated by valence lights incorporated within the new gypsum wall board partitions. Those walls enclosing exterior offices have extensive glazing, and lower partitions define a central staff area. Executive-level office finishes have been employed throughout the suite, such as hardwood veneer flush doors and deep pile carpeting.

Rooms 213, 216, 217, 218 and 219, on the north side of the central corridor, are each Senators' offices, and together exhibit a set of architectural finishes, which are typical for Senators' offices located throughout the east wing of the State House. These are:

a. Acoustic tile ceilings with fluorescent lights,
b. stained wood veneer wall panelling,
c. solid wood raised panel doors,
d. medium-grade carpeting.

These offices appear to have been renovated simultaneously, or at least according to a prescribed set of standards. The offices on the second floor differ from those on floors above only in that their acoustic tile ceilings have been hung much further above the floor level, at 15'-5", as opposed to 8'-0" elsewhere.

Room 208 was formerly the Legislative Data Processing Center, and retains the raised metal floor system which allowed for cabling to the main frame computer unit. Again, the acoustic tile ceiling is located high above the floor, and is heavily provided with air-conditioning supply grilles. Interior storm windows in bronzed aluminum frames also remain, as do glass windows, to the corridor, located in former door openings. At present, low partitions subdivide the space into smaller offices.

The corridor of this wing on the second floor also has a very high plaster ceiling, with a plaster cornice. Otherwise, the finishes are typical of the East and West wings:

a. Light marble floor with dark marble trim,
b. marble wainscot,
c. dark stone door casing,
d. plaster walls.

Brigham Extension

On the second floor, the office suites are arranged along two extended corridors running north-south. As on the first floor previously described, many of the original architectural features of these offices have survived, and newer elements have been introduced only incrementally, seldom involving the total renovation of any of these spaces. As a result, the rich, architectural character of the original rooms remains apparent, and with little effort could be greatly enhanced.

The corridors and their articulation play a major role in establishing the character of this area of the State House. Generous in dimension, they are made more grand through the lavish use of marble trim, such elements as the wainscot, applied Doric pilasters, door and window casings, and reveals. Both the doors and interior window openings are round-headed, and have extremely deep reveals. The raised panel doors and the frosted window sashes are typically dark stained wood. A mosaic tile floor and plaster cornice and ceiling complete the palette of materials.

Beginning at the southeast corner, Room 222 exhibits many architectural features typical of this floor and wing. The space is entered through either of two large arched openings, which contain stained wood and frosted glass sidelights and doors framed by carved Ionic pilasters. Once inside, one finds two marble-faced fireplaces, surrounded by mahogany panelling and bookcases, complete with Ionic pilasters, a classical cornice, and glass-panelled doors. Plaster walls, cornice, and ceiling, complete with surface mounted fluorescent lights, are the remaining finishes.

Suite 227, which remains in its original use as the State Treasurer's Office, bears the marks of at least two distinct campaigns of renovation. The cashiers' area has been recently, and rather dramatically renovated. A stained wood frame and bullet-proof glass panel wall, rising to the coffered beam, now separates public and staff areas. The metal-encased Ionic columns have been preserved, and painted a dark purple color. Similarly, the plaster ceiling and deep cornice have been retained, and are now employed as a light source, being illuminated from beneath by pendant up-lights. At one end of the suite, an antique vault is still in use, sitting beneath a mezzanine with a decorative wrought iron baluster and spiral stair, typical of the Brigham extension. This space also includes an unusual fireplace with a metal rather than wood surround. At the other end of the suite, the Treasurer's Office itself is lavishly finished. The mahogany doors, fireplace mantel, and framed mirror above, and built-in cabinets are all in excellent condition, and make the office a convincing example of the character of original Brigham wing executive spaces. The only evidence of modernization in the room are the pendant up-lights typical of the suite, in this

case, beneath a vaulted plaster ceiling.

Auditor

Room 236 is representative of many of the larger suites in this wing, in its wide variety of materials and finishes, and its pronounced subdivision. The central space appears to have been partitioned off the corridor, and so retains the marble wainscot and door casings, and round-headed openings characteristic of the corridors. Notable are the stained glass side lights still present in the central doorway. The remainder of the suite has been aggressively subdivided over time. The originally freestanding Ionic columns are now intersected by full height partition walls to create a series of smaller offices. Both changes in ceiling height, resulting from occasional dropped ceilings, and some lower wood-panelled partitions, create a very broken and disparate set of spaces. This is typical of the House Committee suites on this floor, Rooms 236 to 251, and stands in marked contrast to the more homogenous, and unaltered executive suites, such as that of the Treasurer's Office already cited.

Room 251, assigned to the House Rules Committee, is unique among these suites for its uniformly lowered acoustic tile ceiling, to accommodate air-conditioning ductwork, and large numbers of stained wood cabinets and bookcases. Room 254 has been subdivided with wood panelled partitions that do not reach the plaster ceiling, and is the site of a very serious leak on the exterior wall, which has resulted in much damage to the plaster ceiling and cornice. Room 256, an executive office attached to Room 254, is exceptional for its recent stained cherry wood panelling, wall-mounted wood light coves, and plush carpet over a pad.

West Wing

The west wing of the second floor, similar to its counterpart on the east, houses an assortment of uses and office standards, which have little in common with one another, and derive from different periods of the wing's history. Rooms 265 to 272 have been assigned to the executive branch, and renovated with minimal architectural detailing and standard office finshes:

a. Acoustic tile ceiling with fluorescent lights,
b. partitions constructed of drywall on metal studs,
c. full height glass panels with bronze anodized aluminum frames set into the partitions,
d. wood veneer flush doors and transoms.

The character of these spaces is sufficiently modern and generic as to contain no reference to the materials or detailing of other areas in the State House. In contrast, the State House Physicians' suite (Rooms 276-278) dates back to an earlier campaign of interior construction. The suite of small examination rooms and offices has plaster walls with wood

baseboards, door casings and crown moldings, and wood raised panel doors. More recently, though, a suspended acoustic tile ceiling has been installed there.

In the corridor of this floor, a lower drywall ceiling has been recently added, with strip fluorescent lights running perpendicular to the length of the corridor.

Third Floor

East Wing

The third floor of the east wing is completely given over to Senate offices and conference rooms. The offices have been refurbished to the moderate standard of architectural finish already seen on the second floor of the East wing:

a. Acoustic tile ceiling with integral fluorescent lights,
b. inexpensive wood veneer panelling,
c. wood raised panel doors, and
d. medium-grade carpet.

The corridor through the East wing retains its marble floor and wainscot, painted plaster ceiling, and cornice molding and elaborate brass and glass bowl chandeliers. The doors into the corridor appear to have been replaced at the time of the wing's renovation, but the orininal black stone casings have been retained.

In contrast to other offices, Room 312, at the end of the corridor, the future Senate Ways and Means space, presents an agglomeration of materials and finishes. Plasterboard walls, and aluminum and glass partitions divide a number of smaller offices from the central space, which rises the full 17 feet to the underside of the concrete slab structure above. This is one of the only instances in either the east or west wings where a lowered ceiling has not been installed.

Brigham Extension

The third floor of this wing contains a number of remarkable spaces, ranging from the grandeur of public areas like the Representatives' Chamber and State Library to the lavishly appointed offices of the Senate President and the Speaker of the House. It is here that one feels most strongly the original character of the Brigham extension, with its ceremonial public spaces and richly detailed private offices.

The Senate President and staff occupy a block of rooms opposite the east side of the upper Hall of Flags. The Senate President's office, Room 330, was formerly the Senate Reading Room. This richly detailed room retains most of its original finishes including walls lined with oak panelling, oak and glass built-in cabinets, and pilaster-framed oak door surrounds. All woodwork is in excellent condition. A substantial modern chandelier is suspended from the center of the room, beneath a large molded plaster ceiling panel, and this panel has incandescent down lights along its perimeter. Along the north wall, the original marble fireplace has a number of cracks and pits, one of the few signs of deterioration in this space. Finally, the patterned carpeting is quite lavish.

A number of the other rooms in the Senate President's suite have mahogany built-in cabinets and fireplace mantels. In particular, Room 330D, a smaller office, has a unique and beautiful set of finishes. This was the original Senate President's Office, and is now known as the Coolidge Room. Up to the picture rail, the walls are panelled in mahogany, with one delicate stained-glass window located adjacent to the door. Above the picture rail, the wall is covered by oilcloth with applied plaster ornament, painted copper color, and the plaster ceiling is ringed by foliate relief. A small brass chandelier hangs from the center.

The remaining offices along the east flank of the Brigham Extension contain architectural details similar to those of the Senate President's suite, although not in such profusion, nor in such good condition. Room 332 has a combined plaster cove and cornice molding at least three feet deep. Room 334 was originally assigned to the Secretary of State, but is now used by the Clerk of the Senate. Its mezzanine, with a delicate wrought iron balustrade, once housed a small library, but has since been enclosed to hold air conditioning equipment for the suite.

The main floor of the State Library, Room 341, lies at the northern end of the wing. Again, this is a richly detailed space, its slender Corinthian columns support a balcony within the vaulted space of the main room. An ornate decorated metal balustrade runs along this balcony and into the three arched openings at the east and west ends. The skylight centered in

the ceiling vault and the round heads of the exterior windows are both constructed of stained glass. That skylight is the source of the most significant deterioration in the space, for a persistent leak has damaged surrounding plaster, as well as flooring and furniture below.

The head librarian's office, to the west of the main room, is furnished with built-in mahogany book cases and door trim, as well as very elaborately carved Victorian window casings. The entrance to the stacks is on the east side of the main chamber. These stacks are contructed of metal, with supports and balusters articulated as Doric columns, and the book shelves and stair risers are heavily decorated. A system of mezzanines allows two levels of stacks per floor, and the floors of these mezzanines are actually thick slabs of glass. Some of the glass has cracked and been replaced by plywood, and numerous leaks are apparent around the perimeter of the stacks. The sources of these leaks will be examined on the floors above.

Room 354 to 358, to the west of the upper Hall of Flags, form a suite of offices for the Speaker of th House and staff. Room 355, the Speaker's Office itself, retains its beautifully carved white mahogany panelling, incorporating photographs of former Speakers of the House in the upper panels. The raised panel doors are also made of mahogany, as are the broken pediments above the frome of each one, and the elaborate crown molding running about the perimeter of the room. The most notable alterations to the space are the modern chandelier, and the paint colors, particularly the whites, blues, and golds used to accentuate the ornamented plaster ceiling. Similarly, in the adjacent Room 355, the molded plaster ceiling has received new colors, and the crown molding has been painted gold. In addition, a fluorescent valance light has been installed around the perimeter of the room. These alterations, when combined, dramatically alter the architectural character of the room, and seem, in fact, quite garish when compared to the original decorative scheme.

Room 357/358 is occupied by the Speaker of the House's staff, and has been subdivided into individual offices through the construction of partial height mahogany-panelled partitions. These partitions feature integral fluorescent up-lights which illuminate the shallow vaulted plaster ceiling, and call attention to the original delicate molded detail which covers that ceiling.

West Wing

This wing on the third floor has three distinct types of rooms, in terms of their architectural finishes. Rooms 361 to 366, Representatives' offices on the north side, are identical in finish to the Senators' offices on this floor of the east wing. Rooms 370 and 373 seem to have been renovated to an executive standard simultaneously, with finishes as follows:

a. Acoustic tile ceiling with integral fluorescent lights
b. gypsum wall board partitions
c. full height glass windows opening into the offices set into bronzed aluminum frame
d. medium-quality carpeting.

The third group of rooms, 379 to 383, along the south side, form a part of the Governor's suite, and are unique in their trim and character. Colonial Revival style panel moldings, chair rails and door frames have been applied to the walls to resemble the adjacent Governor's Office, although the acoustic tile ceiling mitigates the effect. These rooms are painted and carpeted to match the Governor's Office and Council Chamber in the Bulfinch building. The two fireplaces, in Rooms 379 and 381, have mantels which are believed to have been re-used from Federal period houses demolished when the site for the West wing was cleared.

Fourth Floor

East Wing

All of the offices on the fourth floor of the East wing are assigned to Senators and their staff and have been renovated to a uniform standard with executive-level office standards:

a. Acoustic tile ceilings with fluorescent lights,
b. stained wood veneer wall panelling,
c. solid wood raised panel doors,
d. medium-grade carpeting.

Room 424, a Senate Hearing Room, is exceptional in that it contains a large U-shaped oak raised panel table.

Brigham Extension

Rooms 427, 436 and 437, Senate and House Hearing Rooms along the east flank of this wing, are notable for their glazed recessed ceiling panels, formed of glass set into wood tracery, and the elegantly detailed wood and glass book cabinets surrounding their Roman brick fireplaces. Both 436 and 437 have vaulted plaster ceilings.

Rooms 438, 438a and 440 were subdivided from the single original space of the State Archives. A dramatic plaster

barrel vault with a glazed central panel spans the short dimension of the spaces. The rooms, the Canteen and State House Broadcasters' suite, currently have inexpensive finishes, such as vinyl tile floors and hung fluorescent lights.

The State Library occupies Room 442. A series of arched openings connect a staff area simply finished with an acoustic tile ceiling, vinyl tile floor and metal desks, to the more elegant mezzanine of the State Library Reading Room. To the east, books are stored in a self-supporting system of metal stacks and mezzanines, simpler in detail than that found on the third floor, immediately off the State Library Reading Room.

Along the west corridor of the Brigham extension, Rooms 443 to 458 adhere to a general standard, having the vaulted ceilings and glass skylight panels typical of this wing and floor. Cubicles are created within larger offices by the use of 7'-0" high wood panelled partitions. Significant architectural details such as Roman brick fireplaces, wood and glass bookcases and molded plaster cornices remain. The corridor has a composite floor of tiles and terrazzo, a marble base and a deep painted plaster cornice. Also, the entrances to Hearing Room 460 (and 427 as well) are framed by Corinthian columns, and a wood panelled ramp, providing handicapped access to the library, has been added at the northwest corner of the wings on this floor.

West Wing

The west wing of the fourth floor has been assigned to the House of Representatives, and contains offices and hearing rooms with medium-grade architectural finishes:

a. Acoustic tile ceiling with fluorescent lights,
b. painted plaster walls,
c. painted wood and glass doors with marble door casings and
d. medium-grade carpet.

Rooms 466 and 477, both Hearing Rooms, have vinyl clad folding walls to divide them in half, as necessary. Room 473 has a number of wood-panelled partitions, and 473G contains office system furniture, with fabric-covered modular partitions.

Fifth Floor

East Wing

The fifth floor of the East wing is primarily given over to Senators' offices. These have executive-level finishes, of two basic types, corresponding to two different campaigns of renovation. The finishes are as follows:

Rooms 504 to 507, 513 to 520 - similar to fourth floor:

a. Acoustic tile ceilings with fluorescent lights,
b. stained wood veneer wall panelling,
c. solid wood raised panel doors,
d. medium-grade carpeting.

Room 511-office suite:

a. Gypsum wall board and acoustic tile ceilings,
b. gypsum wall board walls with some glazed openings,
c. lower natural wood and glass partitions to screen secretarial pools,
d. natural wood flush doors and
e. high-grade carpeting.

Both groups of rooms, as well as those of the West wing on the fifth floor, have received new exterior windows: insulated double-hung wood sash with operable blinds inside the air-space. These windows have not proved to be durable, with leaks and failing blinds being the major problems.

Brigham Extension

Rooms 521, 523, 525, 528, 529 and 540 A, B, C, D, in the Brigham and Spofford extension are all rafter storage areas. Within the wrought iron beam and wood plank roof structure, each room has a large skylight. Beneath each skylight is a glass and wood tracery panel, centered in the plaster vault forming the ceiling to the fourth floor room directly below. Several of the exterior skylights presently leak, and most of the glass ceiling panels have been painted out.

Along the south corridor of the Brigham extension, a narrow room has recently been partitioned off the corridor to form the Governor's Office Automation Center. Made of metal framing and gypsum wall board, it houses a new computer unit. Room 527a, in the core of Brigham extension, is the Office of the Legislative Bulletin, and is characterized by very inexpensive finish materials: painted homosote interior partitions and thin carpeting.

At the north end of this wing, Room 530 houses book stacks for the State Library. The books are stored on a modular metal shelving system which includes a glass-floored mezzanine level. This area is marred by severe leaks from the valleys of the roof above, causing peeling paint and deteriorated plaster at this level and in stacks on the two floors below. Also notable architecturally are the deep arched niches along the central wall of this space.

West Wing

The rooms of the West wing on the fifth floor contrast strongly in their austerity with those of the East wing described

earlier. Rooms 541-549 are used by a variety of veterans' organizations and are characterized by standard office finishes of the 1940's or 1950's:

a. Painted plaster ceilings and walls,
b. suspended fluorescent lights,
c. simple trim details,
d. linoleum floors.

The spaces and their furnishings are generally in good condition. Room 545 is unique in that it contains the metal frame and frosted glass partition system seen elsewhere in the building, in this case, in its original condition. Also, severe roof leaks were noted behind the parapet outside Room 546.

4.6 Testing and Analysis of Historic Fabric

Methodology

In preparing an historic structure report the use of various testing and analysis methods enables those who study the building to develop specific physical evidence to support their conclusions. Often the documentary research (cf. section 3.2 which describes the methodology for historical documentary research) presents questions which can be answered by an analytical look at the existing physical fabric of the building. A second type of question which can be answered by testing and analysis is that of the present condition of historic surfaces. The types of corrosion on metals, dirt and staining on wood or painted surfaces, and subflorescence on masonry materials can be determined, along with the numbers of layers of different types of surface finishes which, over the years, may have obscured the original surfaces. Finally, testing and analysis can provide information about the types of cleaning and treatment procedures necessary to a quality restoration/conservation effort. Recommendations are developed based on the results of the tests and analyses performed by architectural conservators.

The procedures used for the testing and analysis of historic materials and finishes are of two basic types: optical and chemical. Both field and laboratory microscopes were used in the work done at the Massachusetts State House to extend the power of the human eye. Field microscopes were Bausch and Lomb stereo-binocular zoom instruments which permitted the researcher to observe the material under consideration with awareness of the thickness of paint layers, depth of corrosion or pitting, and friability of substrate. The maximum magnification of these microscopes is 60x. In order to make sampling more efficient, the researchers used a 10x Hastings triplet lens to do rapid surveying of many areas before zeroing in with the higher power magnification. In the laboratory, a single eyepiece microscope with maximum magnification of 400x was used to make further determinations about the nature of finishes and substrates.

Optical methods of analysis are most frequently used to study the history and existing conditions of historic building fabric, but chemical tests may be necessary to make determinations about the precise material of a given substrate or the best method of removing dirt, stains, corrosion, or other harmful accretions. In order not to make large-scale intrusions into historic fabric, solvent tests are often carried out in the building, under the field microscopes using very small pipettes and cotton swabs. Such cleaning and treatment tests can then be scaled up when and as work in a specific part of the building is being planned.

One of the chief purposes served by testing and analysis of the

historic architectural material of this building was to answer questions relating to the history and evolution of the major rooms and spaces. The researchers used several traditional methods of making determinations as to the specific dates of relative ages of parts of the building. First, each room was examined to see if any "ghosts" or visible traces of earlier material remained. Frequently there is a thick rim of paint at the edge of some removed moulding, stairway, partition, or other piece of trim or architectural fabric. The ghosts of stairways were found, for example, in the House Coat Room (now Room 348) and in the west corridor on the main floor of the Bulfinch portion of the State House. Ghosts of earlier trim remain throughout the present Senate Reception Room, as described in Section 3.3. When original hardware is removed, its outline can often be seen even through later refinishing of doors, as was evident in several rooms in the Brigham extension and in the two 1914 wings.

Another method of performing historical investigation entails searching for tool marks, original nails of construction, and other visual evidence of construction technology. Hence, in the Bulfinch section of the State House the presence of vertical saw marks or hand planing strokes, wrought nail heads, lath split on all four sides, along with the requisite number of paint layers, provided evidence of original architectural fabric. The dates of patents of later types of nails are known, and hence when they are found, it is clear that they chould not have been used prior to the date of their earliest manufacture. It is, of course, not so easy to establish a date after which they could not have been used, but as nail manufacturing improved and nails got cheaper, it is known that builders quickly began to use the less expensive new product. Where nails of several periods were found in a single element, it usually seemed reasonable to assume that the earliest nails indicated an approximate date of installation.

The number and colors of the paint layers on wood, plaster, and metal also provide historical information. While it may be that the portions of architectural fabric having the greatest number of paint layers are the earliest in a room, the true picture is most often not that simple. Many and various are the possible reasons for paint layers presenting dating evidence which is unclear until very carefully studied, with repeated sampling. For example, certain areas of woodwork may have been stripped, or abraded by ordinary wear and tear, and hence have later paint layers lying directly on the wood substrate. Sometimes later layers run in under earlier paints when there has been cracking or alligatoring of original paint. On plaster surfaces, later skim coats or patches may hide earlier paint evidence, or, on plaster ceilings, all early calcimine may well have been scrubbed off. Glazes may discolor and be difficult to distinguish from actual paint layers; some areas may have been touched up many

times and display a far different chronology from other identical portions of wood or plaster trim. For these and other reasons, it is necessary to do a large number of paint samples in areas where any question exists, and to do cross-sectioning of samples in the laboratory.

When an original finish coat color does not appear on material suspected of being later, it is a helpful piece of dating evidence. When an original finish coat color on one piece appears at a definable number of layers up from substrate on a portion of a room suspected of being earlier, one may be able to draw some reasonable conclusions about just how much earlier that piece is.

While a description of all of the contingencies involved in using paint analysis and investigation to aid in dating of the historical features of a building could continue, the above discussion will provide a sample of some aspects of the methodology.

The process of arriving at a color match to an early or original paint demands good sampling, proper treatment of the samples, a trained eye, and at least as much time as paint investigation. After removing later paint layers with a scalpel down to the layer to be matched, one must expose that paint layer to two-to-three days of "bleaching" of darkened linseed oil vehicle by UV light. Then, again under the microscope, one must try tiny chips of commercial paint samples against the building sample, holding them both at the same angle to the light, if possible matching the degree of gloss. Often modern paints do not exactly match earlier paints, and a researcher must select the most appropriate near-match.

A final note on methodology of paint study should be made: all due efforts to distinguish primers and first (but not finish) coats from finish coats were made. Within the bounds of this report, however, it should be noted that far more time could have been applied to solve some of these uncertainties.

With regard to analysis and testing of metal surfaces, the researchers made the following types of determinations: whether the metal was solid and cast, plated and cast, formed and/or patinated or painted. Every attempt was made to discover original finishes of all metal surfaces, with assistance from a metals expert.

The testing and analysis of stone surfaces consisted primarily of determining the original degree of polish on the marbles, the types of waxes or abrasion which were now obscuring the original polished or smooth surfaces, and the feasible methods of removing dust, dirt, and stains from those surfaces. Where polymeric

coatings other than waxes were suspected, no further analysis of precise resins was possible.

In summary, the testing and analysis of the wood, plaster, metal, and stone surfaces of the Massachusetts State House interior aided in establishing the date of installation of architectural fabric, in determining the probable original appearance of that fabric and in suggesting the proper maintenance, restoration, and conservation treatments to be done at present.

Areas were tested on a room-by-room basis in the primary spaces and in a few typical locations in less significant areas. Intrusive testing was not undertaken as part of this study. In cases where such testing would prove valuable, it is so noted in the text, and is recommended when repainting or redecorating of the space is planned.

Exterior

This outline of the dates of exterior elements of the Bulfinch building will proceed, more or less, from the top of the building to the bottom. The masonry will be discussed last. Where references are made to documents, such as the specifications for the 1890's restoration, the documents are more fully explained in Chapter 3.

Cupola

The present cupola, including the platform, was built in the 1890's restoration. Except for a few differences, such as the lower balustrade, it accurately replicates Bulfinch's original, which had been replaced in 1859. A drawing of 1958 by architect Edward Sears Read, filed under contract number G-803 #5, calls for the following elements of the cupola to be replaced at that time: sashes, window casings, and pilasters. Other elements, including the freestanding columns, are noted to be repaired, not replaced.

Since the cupola is a rather accurate re-creation of Bulfinch's, and an integral part of the 1890's restoration, it should be preserved as is.

The slight possibility exists that one or more of the five finials at the top of the cupola are Bulfinch's. The specifications for the 1890's restoration includes the instruction that the "cones" on the previous cupola of 1859 are to be re-used. Indeed, the finials on Bulfinch's cupola (in the 1858 photo, Figure 11) look like those on the 1859 cupola (Figure 12) and like those on the 1890's cupola (figure 29). They could have been re-used twice, and may still be there.

Exterior Covering of Dome

There is some difficulty dating the existing copper covering of the dome: it is difficult to compare it sheet-by-sheet to photographs of various dates. The copper covering generally resembles that shown in the earliest clear photograph of the building, that of 1858 (Figure 11). Copper was first applied to the dome in 1803, and the dome was recoppered in 1831 (See chapter 3). As yet, records of later recopperings have not come to our attention. The specifications for the 1890's restoration note that the existing copper on the dome was to remain.

The copper should be maintained by such repairs or renewals of its gilding or base sheets as are needed. At the time that any copper sheets are opened up, evidence concerning the age of the cleating nails should be noted and evaluated.

Lightning rods show in the 1858 photograph and in all later views, curving down over the surface of the dome. We have not been able to date the present lightning rods. Their state of maintenance should be assessed regularly by a qualified inspector.

Drum of Dome

Hand wrought nails (as judged by clearly hand-wrought heads) were found in the cornice of the drum of the dome. This cornice conforms to all old photographs, and all or much of it is clearly Bulfinch's original. It may be the only original woodwork left on the exterior of the building, and must be scrupulously preserved. In spite of its elevated location, it is in good condition, on account of an excellent heavy sloped flashing above it.

Below cornice level, the specifications of 1896 call for re-studding, re-boarding, and re-coppering the vertical walls of the drum of the dome. Also, the window casings were specified to be replaced (See chapter 3). It appears that this work was done. Photos predating the work show a space between the pediments of the window casings and the cornice of the drum (Figure 14). Since the 1890's, the pediments have contacted the cornice (Figure 28). Thus extensive rebuilding must have been done. It is possible, though unlikely, that some elements of the older pediments might have been re-used. When work is required on these window casings, evidence of their age should be noted.

The present flat-seam metal sheeting on the drum of the dome appears to correspond, in number and location of horizontal courses, to what is seen in photos dating back to the 1890's. It is probably the metal of that date. The 1858 photograph shows similar, but not the same, metal sheeting.

Glass-paned sashes with arched heads survived at these locations until the 1890's restoration, at which time louvered openings, as at present, appear in old photographs. There happen to be rather clear turn-of-the-century views showing the two more southerly windows on the east side of the drum; here, as at present, there were 13 slats in each window. It is hard to say if they are the same glass slats as now exist. They appear to be painted in the old views but it is not possible to be certain. They are indistinguishable, in the old views, from the present slats.

The replacement of sashes with louvers in the 1890's undoubtedly had to do with improvements in interior ventilation. A certain price, in appearance, was paid.

Roofs

No early roofs survive on the Bulfinch building. The roofs of the flanking wings of Bulfinch have been structually rebuilt twice: once to accomodate Washburn's Blue and Green Rooms in the 1860's, and once again, to more nearly resemble their original appearance, in the 1890's restoration. The original roof profile shows clearly in the 1858 photograph: its ridge is higher than at present, extending right up to the bottom edge of the attic story cornice (Figure 11). The flashing lines for the original steeper roofs of these side portions of Bulfinch can be seen, in the brickwork of the attic both above and below the present more gradual incline.

These side areas have had slate roofs since the date of construction, and the tradition should be continued.

The roof of the pedimented attic story has been covered with copper since 1831 (see Chapter 3) but the present copper is not that old. It matches, in the visible details of fabrication, the copper flat-seam roofing on the Brigham extension. Although the specifications for the 1890's work called for a standing seam roof on this pediment, a clear photograph of this roof taken just after the 1890's restoration shows flat-seam roofs on the pediment and the Brigham extension. Thus, the present pediment roof probably dates from the 1890's restoration. It is interesting to note that its seams are unsoldered, except at points particularly prone to water backup. This use of unsoldered seams is an old tradition in flat-seam copper roofing: it has the advantage of allowing every sheet to expand and contract individually, so that there are no cumulative stresses.

Attic Story Cornices

The main and raking cornices of the pedimented attic story were entirely renewed in the restoration of ca 1960. This work is specified to be done in the drawings by Edward Sears Read and Associates, Architects, bearing the contract number G-803- #4. That the planned work was done is confirmed by the clearly new appearance of the woodwork and built-in flashings. The only question is whether the large brackets of the horizontal cornice or the modillions of the raking cornice are all new, or whether some are old ones stripped of old paint, repaired, and re-installed. They look new, but evidence of holes for previous hand-wrought nails should not be overlooked when repairs are done. The millwork contractor who supplied items for the rebuilding of these cornices, Jacob Weisman, who then owned the Jules A. Gourdeau firm of Beverly, positively recalls that the large brackets were stripped of paint and re-used.

The new cornice replicates Bulfinch's well.

Attic Story Door and Windows

The obviously new door and windows of the attic story, and their casings, are all the work of Edward Sears Read, whose drawings of 1959 (Contract G 803 #2) call for their replacement. Shop drawings for these items, by the woodworkers Gregg & Son., are filed under contract #1957-1.

This attic story woodwork replicates rather closely the Bulfinch designs.

Bolt Plates on Attic Story Brickwork

Old views clearly date these, and the vertical rods they support on the inside, to the restoration of the 1890's. See section on Senate.

Roof Balustrades

An early balustrade, no doubt original, shows clearly over the portico in the 1858 photograph (Figure 11), as well as in other old views. The specifications for the 1890's restoration call for replacement (to match existing) of the balustrade of the portico. The present wooden balustrade is probably this 1890's one: it is not really early. It preserves, essentially, Bulfinch's original design.

Over the side portions of Bulfinch, there were no roof balustrades until the 1860's, when they were installed to hide the monitor windows of the Green and Blue Rooms. They came off in the restoration of the 1890's. Balustrades were later applied to these side portions of Bulfinch at the time the wings were built, to tie in visually with the balustrades of the wings. These are probably the present copper balustrades. They should be retained, so as to maintain a visual connection that has always existed to the wings.

Main Entablature

The main entablature (architrave, frieze, and cornice) around all of Bulfinch is obviously new and dates from the restoration of ca 1960. The replacement of the entablatures is specified in Architect Read's drawings under the contract numbers G-803 #4 (the portico) and G-803 #5 (the side portions of Bulfinch).

As in the case of the attic story cornices, also replaced by Read, there is a question as to the replacement or re-use of modillions. Read's drawing for the work on the side portions of Bulfinch (G 803 #5) notes that modillions in good condition are

to be re-used. One of the contractors who worked on the 1960 exterior restoration was tracked down and asked about this: John Richard Harrison of the Michael Raccioppi Company of Milton. He believes all the modillions, at least on the portico entablature, are new. One of the woodworking sub-contractors, Jacob Weisman believes most of the modillions on the portico were old ones stripped of paint and re-used. He positively recalls that the brackets on the horizontal cornice of the attic story were stripped and re-used. Again, the presence or absence of old nail holes will tell for sure whenever repairs are done.

The entablatures copy well the Bulfinch designs.

Portico (upper level)

The complete renewal of the upper level of the portico around 1960 is well remembered by many people. Drawings for the portico reconstruction, by Edward Sears Read, are filed under the contract number G 803 #4. There are earlier and revised versions of the Read drawings, the later ones specifying more extensive replacement of material. As the new work is easily identified on the building (the cast iron columns, for example), it is clear that the more extensive program was followed. The new work includes:

- complete re-framing of the portico roof in steel (well remembered by the contractor, Harrison); see shop drawings by Groisser & Shlager of Somerville file under #G-1959-4)
- complete renewal of the coffered ceiling
- complete renewal of the entablature (discussed above)
- all new cast iron free-standing and engaged columns, with cast aluminum capitals
- all new cast aluminum pilaster caps
- a new slate floor (Contract G 803 #2)
- a new cornice just below the slate floor (G 803 #2)

The pilasters, (as opposed to their caps) are wood, and it is not perfectly clear in the drawings that they were meant to be replaced. However, they look rather recent, and a couple of probings in them revealed only wire nails. They may date from the 1890's, when, according to the specifications of 1896, they were supposed to be replaced. Thus, the upper level of the portico is almost entirely new. The one surviving old feature, probably original to Bulfinch, is the wrought iron railing between the columns. Sears' drawings note that this is to be reconditioned and re-set (G803 #2). Though cleaned of old paint and looking very fresh, it does appear to be an early hand-made item. It conforms, reasonably clearly, to that shown in the oldest photographs. Along its bottom rail it shows former mounting points for intermediate supports from the floor, like those in

the 1858 photograph (Figure 11). There is a high probability of an early date for the railing.

The new portico conforms closely to the original, as seen in old photographs.

Doorways onto Portico (upper level)

The casings of these doors, with their consoles and pulvinated friezes, appear to be Washburn's (1867) moved to their present locations by Everett in the 1890's.

They are certainly not Bulfinch's. The 1858 photograph (Figure 11) shows quite different consoles and door heads conforming to what Bulfinch put in his drawing (Plan 1). The present door heads, with their consoles, conform to those seen in photographs since Washburn's remodelling of the 1860's (Figure 13). Quite a few remnants of dark colored paints (the Victorian colors for the building) were found on the one console we studied: these bits escaped the paint stripping evident elsewhere on the casings. Cut nails, of the type common between ca 1850 and 1900, were found in a moulding above one console and in the trim mouldings of the side pieces of each of the casings. Some of the cut nails in the casings could be masonry nails of the 1890's.

As noted in chapter 3, Washburn changed the door openings from their original positions (where they are now) one bay inward toward the center of the building, and Everett moved them back. Everett appears to have re-used Washburn's woodwork.

For the restoration of ca 1960, Architect Read's drawings of 195[illegible] (G803#2) call for the existing door casings to remain but for new doors and new wood and glass transoms to be made exactly copying those which existed at the time. Old views show clearly (by the proportions of the panels) that the wood transom panels had been replaced by Everett in the 1890's, and almost as clearly that the doors had also been replaced then. Assuming Read did renew these elements, what we have now, therefore, are doors and transom panels of ca 1960, very accurately replicating ones of the 1890's in door casings of the 1860's. This, indeed, is just what they look like.

There is not a fragment of Bulfinch material in the doorways.

Shop drawings of 1957 for Sears' new doors, plus wood and glass transom panels, by Gregg and Son, Woodworkers, are filed under the number 1957 #1. They show, incidentally, that the existing transom bar below the wood transom panel of the west doorway is to be preserved.

Windows inside Portico, upper level

Architect Read's drawings (G 803 #2) call for all new window sashes inside the portico, at the upper level. Shop drawings by Gregg, precisely matching the present sashes, are filed under #1957-1. The large windows are double-glazed.

The drawings note that the old casings are to remain. We found two wire nails (i.e. not early but perhaps 1890's) in the casings of the large windows.

The many alterations of the shapes and positions of window openings here since Bulfinch's time rule out the possibility that Bulfinch's casings remain, re-used in Washburn's new wall. Bulfinch's arrangement of the top row (of small windows) shows clearly in his drawing (Plan 1) and in the 1858 photograph (Figure 11). He had lunette windows at the ends of the row (over the doors), and rectangular windows in between. Washburn eliminated the lunettes and changed the three middle windows to ellipses. Everett, in the 1890's, gave us the present arrangement by putting rectangular windows in where the lunettes had been.

Only the second window in from each end of this row has stayed the same shape since Bulfinch. As best as can be seen from the portico floor, the wood casings of these two windows do not look early.

Doorways inside Arcade

As explained in Chapter 3, Washburn in the 1860's changed the outer door locations at the lower level of the portico from their original (and present) positions one bay inward toward the center of the building. Everett, in the 1890's, restored the original door locations. It appears from old views that Everett used all new material in rebuilding the three doorways here.

In the restoration of ca 1960, Read (drawings filed under 803 #2) called for new doors and casings at these locations. Shop drawings for the doors and transom panels, by Gregg, are filed under #1957-1; these indicate that the "jambs" are to remain, thus somewhat contradicting Read. There are no drawings for new arched sashes over the doors, and, indeed, these three sashes have plenty of paint layers to indicate that they date from the 1890's.

Read's drawings note that all work is to copy the old exactly, except that the doors are to be made shorter, by making the upper panels part of the transoms, rather than part of the doors themselves. Old views clearly show the taller doors of the 1890's, now copied, shorter, by Read. Marks (at the side doors) made by the swing of the taller doors exist on the soffits of the 1890's door jambs above the recent transom panels.

There is certainly no really early work present. Visually, the doorways are as designed by Everett in the 1890's. One wonders if Read knew that he was meticulously reproducing Colonial Revival work, or thought he was copying Bulfinch.

Windows inside Arcade

Architect Read's drawings (G 803 #2) and Gregg's Shop drawings (1957 #1) show all new sashes for Doric Hall and the basement windows below. The sashes do correspond exactly to the drawings and appear to date from this time (around 1960).

The drawings (Read and Gregg) note that the casings are to remain. The casings may date from the 1890's: if so, they must have been stripped of early paint in the work of ca 1960. As on the upper level of the portico, the revisions of window and door arrangements by Washburn and Everett rule out the possibility that very early work survives. Bulfinch's window and door arrangements here can be seen in the 1858 photograph (Figure 11).

Windows, side portions of Bulfinch

Architect Read, in drawings filed under G 803 #5, called for replacement of all the sash in the side portions of Bulfinch (that is, the east elevation, west elevation, and side portions of the Beacon Street facade). Shop drawings for these sashes, by Schultz Woodworking Company of Cambridge, are filed under G-1959-2. The sashes now present do, indeed, look like high-grade sashes of ca 1960, in a Colonial Revival style. Features of their construction absolutely rule out the possibility that any are really early.

Read's drawings note that the casings of all the basement windows, and of the small top level windows of the west elevation, are to remain. The casings may thus date from the 1890's, but certainly do not look really early. It must be remembered that the entire basement level, as an exterior feature, was created by excavation long after the original construction. The small window casings at the top of the west elevation could be looked over better when there is staging.

Read's drawings for the work of ca 1960 specify that all the frames and trim of all the arched windows, and all the large rectangular windows beneath them, on the side portions of Bulfinch, are to be renewed. This specification included the pilasters, capitals, entablatures, and balustrades of the arched windows.

Most of this woodwork does, indeed, look new. Perhaps a little material (maybe the balusters beneath the arched windows) is old woodwork stripped of old paint (we found none) and re-installed.

This material could not be properly inspected without a staging. A sharp eye for evidence should be kept out when repairs are done. An important thing to keep in mind when studying these windows more closely is that, according to the specifications of the 1890's, the panels beneath these arched windows were renewed at that time, "using the old half balusters where possible." Though perhaps rebuilt twice, the present decorations of the arched windows look about like Bulfinch's in the 1858 view.

An important question about these window casings is whether the pilaster caps of the arched windows are Bulfinch's or are duplicates by Read or replacements of some intermediate date. If original, they are survivors of the "45 Capitals for Venetian windows" supplied by Charles Storer, who furnished Bulfinch many ornaments of "composition" (See chapter 3). As the sashes adjacent to these capitals are painted shut, the answer will have to wait until there is staging.

Exterior Trim Color

In September of 1983, SPNEA conducted a paint color study of the woodwork of the exterior of the Bulfinch building. This study was limited to determination of the original trim color, as opposed to the full sequence of colors used since construction. At that time, it was found that much of the original woodwork had been rather recently replaced, and that remaining original woodwork (the cornice of the drum and the dome) had been stripped of old paint. A few traces of old paint were found in a quick inspection of this cornice, including what looked like early off-whites, but the stratigraphy had been upset by weathering and paint removal.

A good hint that white or off-white had been used early in the building's history was the fact that this color was indicated in the original (1811) J.R. Smith water colors of the State House at the Boston Public Library (Figure 6).

The best preserved paint evidence was found on a pilaster cap at SPNEA, which had been removed from the brick wall inside the portico in the restoration of ca 1960. It had been well protected in this sheltered location, and the stratigraphy of paint layers was found to be consistent and undisturbed. Indeed, beneath the dark Victorian colors were roughly half a dozen off whites. During the present study, it became obvious that, as originally built, the south facade of the State House had no pilasters within the portico -- only the half-round engaged columns (Figure 11), and that the rectangular pilasters were added by Washburn when he rebuilt the entire brick wall inside the portico (Figure 13). Did this mean that, in doing research in advance of a full study, the paint study had relied on woodwork irrelevant to the Bulfinch period?

It has become clear that the pilaster cap is original to Bulfinch: it originally served on one of the twelve pilasters of the north wall of the building, and was moved by Washburn to the south wall. As explained in Chapter 3 Washburn rebuilt not only the central portion of the south facade, but also, at the same time , the central portion of the north one. Until that time, as shown by Bryant's drawings of 1855, the central portion of the north wall remained as originally built, with all twelve pilasters (Plan 15). Washburn demolished this section of wall and replaced it with a cheap metal-clad wall (bricked over in the 1890's) some feet farther north (Figure 19), in order to add a north gallery to the then House of Representatives. He re-used four of the Bulfinch pilaster caps from the north wall for his new pilasters on the south facade.

That he did so is confirmed by the presence of hand-wrought nails in the pilaster cap owned by SPNEA. One of these nails was sent to Lee Nelson of the National Park Service, the recognized authority on old nails, who has positively confirmed that it is hand-wrought. There is virtually no possibility that hand-wrought nails would have been used in the assembly of a new pilaster cap in the 1860's.

The character of the carving looks early, and provides additional confirmation of the cap's being original.

Thus, the pilaster cap, and other pilaster caps and column capitals removed in the 1960's and now scattered around among various owners, bear the full record of paint colors.

Masonry

Brickwork:

A great deal of original brickwork survives on all three facades of the Bulfinch building. The original brickwork is laid up with rather narrow joints in an orderly Flemish bond. Flemish bond was a fashion in high-quality brickwork in the Federal period. Among the several kinds of brick on the building, the original type can often be distinguished by color (varying, though generally lighter than the later brick), size (in the vicinity of 2 1/4" x 3 3/4" x 8"), and texture (a little more irregular than most of the later brick). It is not easy to be sure that a certain area has been undisturbed since Bulfinch's time -- it might have been rebuilt at some time using the original brick or a good match. Thus, in the partial inventory below, areas are at best said to "look original." A more positive method of dating brickwork to either before or after 1858 would be to subject the very precise 1858 photograph to a brick-by-brick microscopic calibration, and then to compare individual brick sizes and locations (at least in the south wall) to the present.

Quite a bit of the brickwork is positively later. These areas are dealt with first.

--wall inside portico

At both levels of the portico, the brickwork cannot predate 1867. At that time Washburn demolished the wall inside the upper level of the portico and built the present wall several feet farther south (see chapter 3). Prior to that date, the portion of wall within the upper level of the portico had been in plane with the side portions of the Beacon Street facade (Figure 11). To support his more southerly new wall at this upper level, Washburn either rebuilt or thickened the wall directly below, inside the arcade (the lower level of the portico). As originally constructed by Bulfinch, the wall here did not have deep arched recesses for the windows and doors (Figure 11). The bricks in both these areas do not match the originals.

At the lower level, not only is the wall thicker than originally, but its four projecting piers, which echo the four outermost freestanding piers of the arcade, have been built forward to a corresponding extent. These rebuilt piers are made of the same brick as the rest of the rebuilt wall (darker and more uniform than the original brick) and are laid up in the same common bond. The apparently original freestanding piers are laid in Flemish bond.

Moving the engaged piers forward in the 1860's entailed making narrower the single arch on each of the end elevations of the portico, and rebuilding the associated vaulting. The more northerly original extent of each of these arches can be seen as an imprecise curving blend of original and later bricks in the northern spandrel of each arch.

--patches over windows

The large rectangular windows on all three facades were lengthened upward by Washburn in the 1860's, right up to the stone belt course (Figure 13). As part of his restoration in the 1890's, Everett restored the shorter openings. The patch of later brick over each of these windows is easily seen.

--attic story panels

The two square panels of projecting brickwork around the round windows of the attic story are obviously recent reconstructions. The 1858 photograph shows a different arrangement of bricks to form these panels, (Figure 11), although the overall design is the same.

--central windows, east and west elevations, lower level

On the west elevation there are five large rectangular windows in the lower story of the brickwork; in the matching location on the east there are three. The central one of each of these two banks of windows shows later brickwork patching along its sides (as well as overhead). At a point most of the way up the sides, these patches are enlarged sideways.

These are the marks left when the original end doorways, their porticos, and the lunette windows over the portico roofs, were removed in the 1850's (Figure 5). By implication, the surrounding brickwork must have been older (no doubt original) at the time of the patching.

Additional patching at the bottom of the western central window relates to the removal (around 1917) of Bryant's rusticated granite basement doorway of the 1850's, which had projected up into the brickwork. Good views of this doorway exist in the SPNEA snapshot photograph file (Figure 26).

Besides these areas that can be positively established as later, there are some areas that look as if they may have been rebuilt or replaced in the course of repairs.

-- east elevation, top portion. The upper third of the east elevation looks possibly rebuilt: the size and color of the bricks are different, and the bond is not as neatly done as on the lower portions of the wall.

-- south elevation, east side, upper portion (some areas). The upper third of this wall contains areas which lack the neatness of the orignal craftsmanship. The arch over the central window, with its in-fill of brick directly over the window opening, is much sloppier work, mostly with wider joints, than the matching arch on the Governor's side.

This leaves a good deal of brickwork that "looks original," including:

-- The triangle of brick in the pediment below the dome.

-- The matching pediment on the north side of the dome, now visible only from the roof of the Annex. Here, bricked in, is the brick enframement for Bulfinch's elliptical window. Also preserved here are nineteenth-century paints that escaped removal in 1927.

-- Most of the three walls of the attic story, except for the two projecting panels and quite a few repairs.

-- The west facade, except for the areas noted above and perhaps some parts toward the upper north corner where the

brick bond is a little skewed.

-- South elevation, west side. This appears to be one of the least disturbed areas of original brickwork. The excellent craftsmanship in making the three arches over the upper level windows is easily seen. The later patches over the lower level windows are noted above.

-- South elevation, east side. Most of this facade, except for the patches over the lower level windows and maybe some upper portions as noted above, looks original.

-- East elevation. Except for the possible rebuilding of the upper portion, and the patches at the lower level windows, this looks like early work.

--Free-standing piers of portico. The eight free-standing brick piers of the portico look original, except for some repairs.

Considering that the rebuilding of the wall inside the portico and much other alteration and patching of brickwork went on during the years the building was painted, it is fortunate that removal of the paint in 1927 did not reveal mismatches too gross or widespread to accept or to correct. We have not found out how much correction of mismatches was done in 1927.

Mortar in Brickwork:

Many areas, the west wall, for example, have obviously been repointed at least once and now show modern cement mortar. Some areas, as seen from the ground, are not so easy to characterize as to the date of the mortar. The evidence can be studied more closely when staging is available.

Excellent samples of the original mortar have been preserved in areas of wall covered by later additions. The roofs and appendages of the Brigham extension cover portions of the attic story walls of Bulfinch, for example that portion of the east attic story wall, once exterior, that can be seen in the space above the Senate Reception Room (see text on that room). The original mortar is a typical white lime mortar.

As repointing, no doubt piecemeal, is done in the future, serious attention should be paid to the composition and color of the mortar.

Stone Trim in Brickwork:

--marble belt courses

The upper level belt course stones on all three facades, between the arched windows, are weathered, dirty, and look as if they retain some of the absorbed vehicle from the nineteenth-century paints that were applied to the masonry. These belt course stones are probably original.

All the lower marble belt course stones (below the arched windows, and the imposts in the arcade of the portico) are clearly much newer. The only documentary reference that has yet come to our attention concerning replacement of belt courses is mention in 1927 that when the paint was stripped from the brickwork, a hodge-podge of patches in different colored stones was found in the belt courses. This situation was obviously corrected. The upper belt courses, between the arched windows, appear to have escaped much change.

The marble impost stones on Washburn's thickened wall inside the arcade look perhaps older than those in the freestanding piers of the arcade. They probably date from the 1860's, whereas the others probably date from later repairs. It is just possible that some were re-used from Bulfinch's earlier wall.

Today the original and later belt course and impost stones correspond to Bulfinch's design, except on the wall inside the arcade.

--window lintels inside portico, upper level

These five lintels, scribed to look like flat arches, conform in design to what is seen in the oldest views (Figure 11). However, the outer two are newer than the inner three: they are fresh looking and just a little different in execution. These were recorded in the specifications for Everett's work (see chapter 3). At that time, these openings were being changed back to windows, having been made into doors by Washburn.

The inner three lintels could date from Washburn's rebuilding of this wall in the 1860's, or, more probably, they are Bulfinch's and were re-used by Washburn. They look Federal.

The sills of the inner three windows are brownstone, and those of the outer two are marble. The outer ones cannot predate the restoration of window openings here in 1890's; the inner ones could be Washburn's or earlier.

--keystones in arcade of portico

The keystones are weathered and look original, except for the second from the west.

--attic story pilaster caps

The eight pilaster caps of the attic story are early, if not original. They are somewhat weathered and conform to those seen in the 1858 photograph (Figure 11), They mostly escaped the paint stripping of 1927 and retain, in small spots, a long sequence of paints including dark nineteenth-century colors.

They are made of some hard, pink material which deserves full analysis: it seems to be a fired clay product (terra cotta). Charles Storer, who supplied many plaster and composition ornaments for the interior of the State House in the 1790's, also billed for "16 Attic Capitals," eight for the south and eight for the north (see chapter 3). These may be they, or early replacements for composition capitals that deteriorated. This is a really interesting question, made more so by mention in a 1920 book on the history of terra cotta that early terra cotta capitals made in Worcester still existed on the Massachusetts State House [1].

Of the eight capitals beneath the north pediment of the attic, at least three survive, wedged in between the brickwork of Bulfinch and the Annex. These can be seen, with a little effort, in the attics over the East and West wings of Bulfinch and, with more effort and a very strong lamp, in the strange space behind the door labeled "552," off the Brigham staircase near the Governor's suite. One must look to the left and far up. In this same place, Bulfinch brickwork with nineteenth-century paint layers is also well protected.

--paterae (roundels) on arcade

Charles Storer, who supplied many plaster and composition ornaments for the interior of the State House, also furnished "4 Large Patteras for Colonade" (See chapter 3). The present ones may be these or early replacements: they look weathered and conform to those shown clearly in the 1858 photograph (Figure 11). Full identification of the material used to make these would be most interesting, when staging is available.

Granite Basement:

As recounted in chapter 3, the granite basement, as an exterior feature, was created in the 1850's by excavation. The present rusticated granite dates from this time, except for the following

later changes.

-- The projecting front portion of the basement was rebuilt in the present smooth - faced granite in the 1890's restoration (Figure 24). The balustrade also dates from the 1890's, earlier photographs showing a granite balustrade (of the 1850's) with different pedestals and a different upper rail. It is possible that the balusters were re-used in the 1890's, but the present ones seem to look fatter than those in the 1858 photograph (Figure 11).

-- The east and west elevations of the basement story now have no doors. There were doorways in the central bays of each of these elevations, as recounted in Chapter 3. On the west, the doorway was original to the 1850's work, and on the east it was an addition. Photos at SPNEA from the 'teens and 'twenties show that the doorways were removed at about the time the flanking wings were built. The patches in the granite and the brickwork just above are easily detected.

-- The window openings of the granite basement, on the south and east elevations, have been lengthened. The 1858 photograph shows the original window lengths on the south and east facades (Figure 11). On the west half of the south facade, the openings have been lengthened (downwards) so that they now take up about five courses of the stonework rather than four. On the east half of the south wall, and on the east elevation, they now cut through six courses, rather than five. Old photographs (Figure 14) show that this change occurred at about the time the door was added to the east basement wall -- probably 1881 (see chapter 3).

A photograph in the SPNEA snapshot file, from just after the 1890's restoration, not only gives a good view of the 1850's doorway in the west elevation of the basement but shows window openings here only four stone courses high, as at present (Figure 26). This was probably their original height. The northern two of these windows, according to the specifications for the 1890's work, were either created or altered at that time to match the southern two.

The SPNEA photo shows that these western window openings differed in design, as they do now, from those on the other two elevations: they have voussoirs, rather than plain arched lintels.

Base Course of Western Basement Wall:

The lowest course of stones of the western basement wall is differently tooled and looks newer than the rest. This feature has not been dated.

Slate Floor of Arcade:

It has not been possible to date this floor. A photograph in the SPNEA file shows this floor entirely torn up in the restoration of 1897, when the projecting part of the basement was rebuilt. It has probably been renewed or relaid since then.

Ceiling Inside Arcade:

Without staging, it has not been possible to find out whether any early plaster or mouldings here survived the various programs of alteration and repair.

Conditions

Roof and masonry conditions of the Bulfinch building are treated in the separate reports on those subjects. Woodwork conditions are generally good, a program of repair and painting having just been completed.

Dome: Interior Features and Structure

From within the dome, materials of two periods may be seen in abundance: original 1790's structural elements, and the extensive structural material of the 1890's restoration.

Original Material

Most notable of the original elements is the timber ribbing of the dome. The timber itself is hidden beneath fireproofing plaster of 1890's, but the shape and layout of the ribs are clear. The extensive records of the 1897 restoration make it clear that the old ribbing was not disturbed but only reinforced with an inner cage of steel (see Chapter 3). That the old ribbing is, in fact, of the Bulfinch period, and not a later rebuild, is virtually certain, as no mention of rebuilding the dome has been found in the extensive nineteenth-century documentation.

As a late-eighteenth-century ribbed dome construction, the State House dome has importance in the history of American building construction, quite apart from its importance as the prototype for the symbolic feature of so many American capitol buildings. A section drawing in the 1849 proposalfor ventilation (Plan 11) indicates that the dome is of laminated rib construction. The dome was built at a time when more efficient types of laminated ribs were about to become popular, and it would be interesting to know where the State House dome fits into this story.

Other structural elements and evidence from the 1790's are readily visible. Through holes in the 1897 fireproofing plaster, the back side of the domed ceiling of the Senate is visible. The timber ribs and hand-split laths resemble those of the 1790's vaulted ceiling of the Senate Reception Room.

The stub ends of large beams, sawn off presumably in the 1890's restoration, are visible at the level of the base of the pediments in the brickwork of the north and south walls. These beams must have formed some portion of the support system for the dome and roof.

Light wooden rafters still carry the roof areas that surround the base of the dome. These are probably original framing members, though they are now propped up from below on the metal framing of the 1890's. More could be learned about them whenever areas of the fireproofing wire lath and plaster are removed.

There are interesting original features of the brickwork. The bricked-up opening for the original elliptical window of the north pediment is impressively large as seen from within the

dome. There are three brick relieving arches for openings through the attic story wall below the south pediment (the central door and the two adjacent windows). The lunette-shaped portions of original brickwork filling the spaces below the arches down to the actual openings are carried on wooden planks--a typical early device for this purpose--which survive in sound condition. The two small round windows at the sides of the attic story wall have only the planks, with no relieving arches above, perhaps because the weight of brickwork at the two ends of the pediment is less than the weight nearer the middle, and the arch was felt to be unnecessary.

Portions of the brickwork of the equivalent windows under the north pediment survive, but there has been much more demolition at different points along the north wall on account of the northern additions (1854 and 1890's) and the installation of utilities.

The most impressive original features of the brickwork are the two arches, some 35' or 40' in span, that carry the east and west brick walls of the attic story over the two original gallery spaces flanking the present Senate. These arches have been cut through in a number of places to install utilities. That these arches are original is indicated by the apparently undisturbed and original character of the brickwork they support, and the fact that they are laid in lime mortar. Besides, as there were galleries originally on the east and west sides of the present Senate, there must have been some sturdy method of carrying the brick walls above.

Further attesting to the early date of the east wall is a cluster of hand-wrought nails protruding from its inner face. These nails appear to relate to a former stairway which had run up along the inner face of the wall: the outline of the stair is preserved as an area of unpainted wall contrasting with the otherwise painted brick. It is directly adjacent to the present metal-framed staircase.

In the four corners of the attic story beneath the dome, large scars in the original brickwork show where portions of masonry have been removed, probably in connection with the removal of chimneys at these points. There remain the tops of adjacent piers, integrally bonded into the original north and south walls, which appear consistently in plans of the building going back to the earliest, extending from the cellar to the attic (Plan 2). These piers must have formed some part of Bulfinch's original constructions for the niches and chimneys in the corners of the current senate.

1890's Material

The second period of work much in evidence from within the dome is the restoration of the 1890's, which is extensively described in the documents (see chapter 3). The steel trusswork and other framing from this period survives today, just as shown in the as-built drawings of 1899 (Plan 40). This metal framing supports the outer dome and the surrounding pitched roof. The 1890's work includes two steel trusses that run north-south alongside the two original arches on the attic story brick walls: these trusses carry the roof and dome trusswork above. The 1890's work also includes the steel staircase to the cupola, and the other metal-framed walkways and stairs.

The back-plastering on wire lath, repeatedly mentioned in the documents for the 1890's restoration, survives today on the whole interior surface of the dome and over the back surface of the domed ceiling of the Senate.

The windows and central door of the south wall of the attic, including the interior casing woodwork, are no older than the 1890's restoration. Indeed at least two of the windows were noted as quite recent work. The doorway may be as old as the 1890's, but, as its casing is wire-nailed, cannot be older.

Several disused fan-shaped lunette windows are stored in the attic under the dome. Their features of construction mark them as items no earlier than the late nineteenth century.

The ventilation ducts above the domed ceiling of the Senate do not conform to the arrangement shown in Washburn's drawings of the 1860's; they probably do not predate approximately the turn of the century. More archaic material may exist concealed by the present insulation.

Governor's Office (Plan 51a)
(Originally Council Chamber

The Governor's Office has changed little since the time of Bulfinch, whose plan for the State House shows this room labeled "Governor and Council." (Plan 1).

Woodwork

The fact that most of the woodwork is of an early date is confirmed by the presence of hand-wrought nails, as noted at the following locations:

- northwest corner pilaster base and pedestal (heads seen) (Plan 51b)

- casing of west door on north wall (heads seen)

- north window alcove of west wall, entire alcove and seat assembly, including panelled window jambs (many heads and shanks seen).

The window seat tops are of solid mahogany. It is likely that they were originally stained or varnished rather than painted as they are now. That they have been split and cut through to install air ducts is a shame, but the holes could be patched using well-matched mahogany and an elegant refinishing could be done. This assumes that paint analysis confirms that a clear finish was used originally and was not painted over at an early date.

Normally, paint layers provide an easy method of dating woodwork elements in a room, earlier woodwork showing early paint layers not present on later additions. However, as elsewhere in the Bulfinch-period rooms of the State House, extensive paint removal was done in the Governor's Office sometime around the turn of the present century, probably in the restoration of the 1890's. Fragmentary remains of the early paints can be found here and there beneath the consistent layering of paints that postdate the removal. There is probably enough paint evidence remaining to permit a paint color study to be done whenever the room is to be repainted and the damage caused by extensive sampling will be covered.

Cornice

The cornice, including the carved modillions, is of wood, unlike those of the 1890's restoration work elsewhere in the building, which are plaster. The presence of early paint layers at the location sampled on the north wall, and the general character of the woodwork, indicate that the cornice is the original, and the

modillions are the "Modillions for the Council Chamber" in the Skillins' bill for carvings of 1798. [1]

Doors

The doors date from the turn of the present century. The doors (not their casings, however) are blind-mortised and have only wire nails in their applied mouldings -- two good indications of a late date. Documents tell us more about the present and earlier doors. One of Bryant's drawings of ca 1855 (Plan 18) shows an eight panelled door of typical Federal period design and almost surely Bulfinch's. Though the door probably looked very similar to the present ones, Bryant clearly indicates that the two pairs of small panels were not of the same size, as they are on the present doors.

Photographs and one drawing (Figure 44) from the late nineteenth century consistently show a very different type of door in this room, of Victorian character and similar to those used by Washburn elsewhere in the building. Photographs of the newly completed 1890's restoration show the present doors, which represent a rather skillful re-creation of the Bulfinch doors. (Figure 45). The lock on the main entry door has been replaced recently, but those on the other doors, like the door hinges appear in old pictures and are typical of the 1890's door hardware found elsewhere in the building.

A document not yet explained by physical evidence in the room is carpenter Amos Lincoln's 1808 bill for 4 1/2 days "Altering door in Council Chamber." [2]

Baseboard and Floor

The baseboard is either a later one or is the original one relocated in a higher position. The distinction could easily be clarified in the future by more aggesssive removal and sampling, when the room is to be re-painted. In any event, the baseboard of the north wall protected, in its raised position, early paint layers on the dado panel, which escaped the stripping done on the rest of the dado panel and which were observed through a small test hole. Cut nails were seen at two locations securing the baseboard; disused holes for earlier hand-wrought nails may or may not exist. The baseboard may have been raised to accomodate the installation of the hardwood floor, now hidden by the carpet. The edge of this floor, and that of some underlying floor or sub-floor, were seen beneath the seat of the north window of the west wall.

Plaster Walls

So as not to make disfiguring holes, the flat plaster surface was not sampled. There may have been sizable repairs, later skim coats, and so on; however, the fact that the plaster walls are essentially original was verified at two points where the back side of the plasterwork is visible from inside the unfinished spaces (where the heating ducts run) around the top portions of the north and east walls. Here, by peering between thick vertical planking, one can see the fully hand-split laths that support the plaster and attest to the early date of the walls.

The distinctive plaster or composition ornaments of the walls correspond to the items in Charles Storer's 1798 bill for ornamental stucco for the Council Chamber. [3] Storer billed for lengths of mouldings somewhat greater than those actually used -- no doubt an excess to allow for trimming and breakage. The ornaments match the description given in the 1798 Columbian Centinel, [4] and indeed the present ornaments must be the originals. There is no documentary evidence to suggest that they have been renewed. The walls and ceilings of the Council Chamber (present Governor's Office) were specifically exempted from the extensive replastering specified for the remodelling of 1867, and a legislative manual describing the completed renovations stated "The Council Chamber, with the exception of the ceiling, which was frescoed, remains with its ancient finish unchanged." [5,6] In the restoration of 1897, the partition walls of the Council Chamber were not rebuilt but merely plastered over on the back sides on wire lath, to protect their wooden cores against fire. [7,8]

Mantel and Fireplace

The mantel dates from the early nineteenth century. Stylistically, it is transitional between Federal and Greek Revival. It is far more plausible as a mantel of 1815 (and advanced at that date) than as Bulfinch's work of the 1790's. It contrasts sharply with the marble mantel that Bulfinch used in 1796 in the Withdrawing Room of the First Harrison Gray Otis House on Cambridge Street. The Otis House mantel (now removed to another building but well recorded in photographs) contains no Greek forms at all: its moulding profiles, as expected in Georgian and Federal designs, are derived from sections of circles, according to the Roman (and Italian) system. Moulding profiles of the State House mantel, by contrast, are mostly derived from the geometrically more complex Greek forms (such as parabolas). There is also a pronounced Greek feeling to the Doric colonnettes, though they do have bases, in the manner of Roman Doric. All the moulding profiles in the rest of the room, and in surviving original details throughout the State House, are

strictly on the Roman system.

There is strong documentary evidence to suggest that Bulfinch had a different mantel here. Charles Storer's 1798 bill for "Stucco work & C" includes the following items for the Council Chamber that would seem to apply to a Federal style mantel of wooden construction with applied composition ornaments [9]:

Tablet in Chimney Piece/wood composition ...1.16.0
2 Blockings to do/ do/ @ 4/6 ..... 9.0
2 Columns for do/stone composition ... 7.0.0

Documents prove conclusively that older mantelpieces in the Senate Chamber (now Senate Reception Room) were replaced in 1808 with two marble ones designed by Asher Benjamin (see section on that room). Benjamin may have designed the present mantel for the Council Chamber as well. A good guess is that the present mantel in the Governor's Office dates from 1812. Up until that year there are repeated bills for re-painting on or around the mantel in this room (then the Council Chamber). An example is Samuel Gore's bill (of the 1807 - 1809 period) for "painting Chimney piece in Council Chamber." [10] These bills relate to repairing, on a wood or composition mantel, disfiguration by smoke or other effects of use. No such bills have been found for after 1812: perhaps the marble mantel came then. Similar bills for the Senate (current Reception Room) end in 1808 when Benjamin-designed stone mantels were put into that room.

Whenever the room is to be re-painted, and certainly if there are to be plaster repairs in the room, the dado caps to either side of the mantel could be removed to see if they have been disturbed before at the time a new mantel was installed, and some more ambitious excavation for positive evidence of an earlier mantel could be considered.

The mantel is certainly early enough and distinctive enough to have real importance as one of the antiquities of the building, and it should be carefully preserved.

The present brick firebox is rather recent looking masonry.

Photographs from as late as the turn of the present century seem to show some earlier finish inside the fireplace (Figure 45) In all likelihood, Bulfinch's fireplace had stone jambs and a stone hearth, as suggested not only by the example of surviving stylish fireplaces of the period, but also by John Homer's 1797 bill for: "Hearth & Jambs for Council Chr.. 23 feet 6/ 6...18." [11] We do not know how the measurement was derived. Does it refer to area?

The present black marble facings (between the mantel proper and

the fireplace opening) could possibly be those referred to in Homer's next entry.

"Marble fronts for Ditto 11 feet 4...19."

The three pieces of marble now present add up, in combined lengths, to 10' - 4", plus some hidden amount. Still, these marble facings look like later work: they look like the wrong kind of marble, and too wide, to be Federal. They may be later than the marble mantel.

Chandelier

The chandelier is a really rich Victorian "gasolier." A persistent legend that it was made by Paul Revere is obviously wrong. No documentation has come to light concerning any chandelier made by Paul Revere for the State House.

The chandelier appears in all old views, has long been associated with this room, and deserves meticulous conservation.

Summary

The Governor's Office is original except for the window sash and tracks, the doors, the mantel and a few other minor details. Thus it is the least changed of any portion, interior or exterior, of Bulfinch's State House. It is supremely beautiful room and quite different from any other in America. It is a highly original and spirited design which, unlike some other such adventures in design by provincial architects, fits together perfectly.

The room has scarely, if at all, been published alongside other great eighteenth-century American rooms. It is not well known to students of American architecture. It deserves more notice.

Governor's Office
Existing Conditions

Settlement

By sighting the east and north (interior) partitions one can see that these have settled in relation to the west and south (exterior) walls. Woodwork has had to be readjusted to compensate. This type of settlement (of interior partitions relative to exterior brick walls) is common in old buildings and is usually not of concern. It may all have been arrested when the extensive re-framing in steel was done in the 1890's: there are no obvious signs of continuing movement.

Window Seats

The cutting of the original mahogany window seats to install air ducts is a mistake that should be corrected, with clever cabinet-work and re-finishing. As noted in the description of the historical materials in the room, it is highly likely that these seats were clear-finished originally.

Rough And Overfilled Paint Surfaces

At the time of repainting, the woodwork generally, and especially in the window alcoves, should be smoothed by sanding of paint ridges. Some localized stripping could be done if a paint study has been completed first.

The carved modillions of the wooden cornice and the composition mouldings of the walls are filled up with paint to the point where they have lost much of their fine detail. There are problems in stripping paint from these features. These features are the ones on which evidence of the room's entire paint color history has been best preserved, escaping the previous stripping that was done on much of the woodwork.

Some deformation or other damage to the composition "panel moulding," as it is described in the 1798 bill, has occureed just below the western air duct on the north wall.

Mantel

A vertical crack runs through the mantel, not including the shelf. This crack aligns with a vertical crack in the inner facing of marble directly above the fireplace opening. Signs of settlement in the mantel, centering on this crack, are easily seen.

The settlement appears to have been arrested. The inner facing

of marble rests upon a steel lintel (an angle iron) which appears to be a later insertion, and which rests on what looks like the later brick work of a rebuilt firebox. The cracked section of the mantel aparently does not detrive support from the buttressed-up marble inner facing, but it feels stable (on being pushed a little). It may someday require work.

The outer hearth is cracked, but feels as if it is well supported. The plinths of the two columns of the mantel pass down behind the hearth, suggesting that this or another hearth once occupied a lower position before the extra (hardwood) layer of flooring was added.

Door Hardware

Door Knobs and Plates:

The base metal is brass, but tests for the presence of gold plating were inconclusive. The color and uniformity of the surfaces suggest that these may be (or may have been) gold plated. Samples should be taken from the surface of representative objects and tested for gold.

These objects appear to have been recently coated with a clear lacquer. While it may be appropriate to coat the plates, the coatings of the handles would probably soon become scratched and worn from normal use, leaving their surfaces open to differential corrosion.

Door Hinges:

The door hinges appear to be a bronze alloy which has been painted with a "gold" paint. This paint should be removed.

Chandelier

This is perhaps the most complex decorative metal object examined during the course of the study. The object appears to be composed of elements made of copper, brass, and bronze. The arms of the chandelier appear to have a resinous coating, but may have been patinated originally. There are areas on the arms that appear to be gilded. The globe element has a coppery-looking surface with gold stars on it. The entire globe is covered with a discolored varnish.

Council Chamber
(Originally Governor's Office)Plan 51c

This room dates entirely from the restoration of 1897. Photographs showing that restoration completed show exactly the present room while earlier ones show the room as of Washburn's

remodelling of 1867 (Figure 47).

All the woodwork (save possibly the floor, which is hidden by carpeting) contains wire nails exclusively. The cornice is of plaster, resembling others used in the 1890's restoration. The entire south wall of the room was rebuilt in the 1890's having stood farther to the south in Washburn's remodelling (Figure 47, Plan 33,a). Little has changed in the room since the 1890's; even the door hardware appears to be of that era.

Bathroom

The bathroom, like the adjoining one off the Governor's Office, is of recent vintage. However, bathrooms partitioned off from each other on an angle, as at present, do show in the 1899 as-built plans (Plan 44). The 1899 plans seems to suggest a light partition, probably open at the top, so that both bathrooms could get light from the adjacent large arched window.

By climbing above the present low ceiling of the Council Chamber bathroom, one sees plasterwork, and an archwway (built up using wire nails) which must have related to the 1897 layout. The previous layout here, dating from Washburn's 1867 remodelling, had been quite different (Figure 33a).

Stair Hall Outside Council Chamber
(Plan 51d)

This stair hall, in which such a grand staircase leads up implausibly to a cramped little landing and minor offices, is scarely changed at all since it was created in the 1897 restoration. No trace of the previous "ante-room" of the 1867 remodelling, seen in various photos and plans, could be found. (Plan 25a, Figure 48). Photographs of the 1897 restoration show the stair hall as it is now. One minor exception is the short length of chair rail moulding just near the foot of the stairs; this is missing from the Haskell photographs, which recorded this area throughly sometime around the 1930's.

The stair hall, including the closet door under the stairs and two doorways at the upper landing, conforms exactly to the "as built" plans of 1899, and the trim elements, including those doorways, are typical of the 1897 restoration.

Inner Entry Hall Outside Governor's Office
(Plan 51e)

This space dates essentially from the 1897 restoration. No trace of the features of the 1867 entry hall, shown in many plans and one photograph, could be found, such as the round columns that had formed a screen between the inner and outer hallways (Figure

47, Plan 33c). The present hallway, including its trim, corresponds almost exactly to the as-built drawings of 1899 (Plan 44)

The bold cornice, though it looks almost primitive enough to be really early, is of plaster on metal lath and furring, highly characteristic of the 1890's work. One of the pilasters (south west) was sampled to determine the nail type: a wire nail was found, indicating a late date. The cornice, along with the wood trim below, is shown in the 1899 as-built cross-section drawing (Plan 40a).

In the 1899 as-built plan, the door casing on the west wall of this space, leading to the Governor's Office and Council Chamber is shown without doors (Plan 44a). Doors, presumably the present ones, appear here in the 1944 plans.

The partition that divides off the room to the south, (Plan 51f), with its door and leaded glass, is a later insertion into what had been a plain square-arched opening (like that still existing toward the stair hall at the north). The partition does not appear in the 1899 as-built drawings and has fewer paint layers than adjacent 1890's work. It looks like an early twentieth-century insertion and appears in the 1944 plans.

Ante-Room Outside Governor's Office
(Plan 51g)

Like the other spaces in this area of the building, except the Governor's Office itself, this space in its present configuration dates from the 1897 restoration. It conforms to the as-built plans of 1899. Wire nails, which are characteristic of late work, were found in the window casing and in the casing of the door to the Governor's Office. The dado cap (chair rail) may be a later insertion, like that beside the large staircase to the north. As stated above the partition dividing this space off from the area to the north is a twentieth-century insertion.

The small doorway in the southeast corner does not show in the 1899 plans or even the 1944 plans (Plan 51h).

The cornice is of plaster and resembles the other plaster work of the 1890's.

Governor's Outer Hallway and Rooms to South
(Plan 51i,j,k)

These three spaces have been carved out of one 1890's hallway. The 1899 as-built plans show a long ha llway extending south to the outer wall of the building. (Plan 44) Indeed, the two partitions that now divide off the southern end of the former

long hall into two rooms show clear signs of insertion, sometime in this century, against pre-existing plaster work. The more northerly of these partitions awkwardly abuts the front of the pilastered entrance to the Governor's inner hallway (Plan 51,l). This more northerly partition does not appear in the 1944 plans, though the southern partition had been installed by that time.

The pilastered entrance screen to the inner hallway, with its entablatures, is integral with trim of the inner hallway and dates from the 1897 work. (A screen of round columns had stood here before.)

The doors at the north end of the hallway (Plan 51m) must have replaced those that show in the 1899 as-built cross section: the same sort of leather-covered doors with elliptical lights as were used so widely in the '80's and '90's work (Plan 40b).

The doorway to the Senate (Plan 51n) looks like an unaltered 1897 feature. A corner of the previous 1867 door casing, here a bit more decorative, appears in an old photograph (Figure 47a). The exterior doors onto the portico, and the doorway in the southeast corner of the southern space, (Plan 51o, Plan 44b) all conform to the in the 1899 as-built drawings and are typical of the 1890's work. The jog in the western wall occurs farther north than it did in 1899, spoiling the appearance of the cornice. (Compare Plan 51p, 44c)

The biggest change in the area since 1899 has been the removal of the main staircase of 1897 which had come up through from the hallway next to Doric Hall (Plan 44d). This staircase still shows in the 1944 drawings.

The cove lighting is clearly modern.

Fourth Floor Offices, West Side
(Plan 52a)

These spaces derive their basic arrangement, and their oldest trim, from the restoration of 1899, but some partitions have been added and changed. The new work stands out very clearly from the old, and the 1899 as-built drawings show the condition as first built (Plan 45). The Boston Globe press room, tucked in beneath the portico roof, is unchanged since the 1890's and has all the trim typical of that restoration (Plan 52b, Plan 45a). The little hallway to this office, behind the western gallery of the Senate, dates from the 1890's and represented, at that time as now, the best access that could be arranged (Plan 52c, Plan 45b).

The window alcove trim of the 1890's survives in all the offices.

Lieutenant Governor's Office
(Plan 50a)

This is an unaltered 1897 space, except for the obvious filling-in of the lower part of the west window alcove, presumably to hide a heating device. Just to make sure that no bits of early trim had miraculously survived through the myriad changes that had gone on in the nineteenth century, some nails were sampled on the baseboard, dado cap, and window casing of the south wall: they were all wire, indicating the late date in spite of the worn look of the woodwork. The flutes in the dado cap are of composition, rather than the wood used by Bulfinch for this detail in the Governor's Office. All the trim and hardware in the room is typical of the 1890's work.

A review of the architectural history (Chapter 3) will remind the reader that the entire suite of rooms on this floor in the western part of the Bulfinch building were laid out in the 1897 restoration and occupy the vertical space where two stories had been before. The earlier "intermediate floor" having suffered repeated rearranging of staircases, structural elements, and room plans, was pulled out and the interior rebuilt completely.

Offices to the North of Lieutenant Governor
(Plan 50b,c,d)

The large central office (Plan 50b) and the smaller northern office (Plan 50c) are 1897 spaces only slightly changed. They conform closely to the 1899 as-built plans (Plan 43) The walls have been, literally, padded at some recent time, and generally colonial-looking wainscots have been installed, filling in the window alcoves. These in-fills of the alcoves do not show in the 1944 drawings. The window trim is of the 1890's, as are most of the doors and door casings. The 1890's doorway between the central and northern offices has been enlarged. The present doors to the main hall outside Doric Hall show in old photos, but so do an outer set of leather covered doors, now gone, with elliptical lights (Figure 64). These had been used extensively in the 1890's work.

Lines on the plaster cornice of the large room (Plan 50e) show where light abutting partition had separated off the southeast corner of the room, as in the 1899 plans (Plan 43a).
A telephone closet in the 1899 plans is now gone (Plan 43b).

Opening directly onto the main entry hall outside Doric Hall is what shows as a "coat room" in the 1899 plans (Plan 50d, Plan 43c). The sink shown in those plans is still there, and is worth preserving as an archaic plumbing feature. A window in the west wall of this space, probably to admit daylight from across the adjacent small office, shows in the 1899 plans but has been

blocked up, the outline showing clearly in the plaster. It was still present at the time of the 1944 drawings.

The small office to the east of the Lieutenant Governor's Office appears to be as it was in the 1890's.

Attorney General's Offices
(First Story, East Side)
(Plan 50 f-1)

In chapter 3 it is made clear that the two floors of rooms that had occupied this area were pulled out in the restoration of 1897, and a single story of high-ceiling rooms substituted, exactly as was done on the west side of the building. Physical inspection confirms the documentary record in respect to the thoroughness of this work: no material predating the 1890's was found in our inspection of the suite of offices occupying the east end of the first floor of the Bulfinch State House.

Also, scarely any material postdating that restoration was found. The 1899 plans showing the restoration as it was carried out show exactly the room arrangements, door locations and swings, and other features seen in the rooms today (Plan 43 d-j). This includes the two small windows in the partitions between the central space and two of the offices toward the south (Plan 43 d,e). At present, these windows are of textured, leaded glass; the plans of 1899 do not specifically show that they were leaded at that date, but they probably were.

A light half-height partition shown in the 1899 plans spanning the central space is now gone (Plan 43k). The present low divider across this space is lower and placed farther west than the original one.

The bathroom has been renewed, but it occupies the same location as the bathroom of the 1890's (Plan 50j, Plan 43h).

The door casings, doors, hardware, window alcove trim, and cornices are all exactly the same type used extensively in the 1890's restoration. Double sets of doors to the main hall beside Doric Hall show in both the 1899, and 1944 plans; the outer set is now missing.

The vault door and the maroon-enamelled cabinets within the vault are really beautiful turn-of-the-century security equipment and should be preserved. A portion of the enamelled shelving in the vault is missing: can it be found?

The tiny room above the vault is not a remnant of the older intermediate story: it is simply leftover space above the vault finished off with a simplified version of the 1890's trim.

Council Chamber and Other Spaces in Governor's Office:
Existing Conditions

The existing conditions in these areas do not demand immediate remedial maintenance, but rather call for simple repainting and some paint-stripping to reveal more crisp detail, as, for example, on the plaster cornice in the outer hallway.

Offices above Governor's Suite:
Existing Conditions

Without destroying good solid 1890's woodwork in this area (such as the window alcoves), these shabby little offices can be cleaned and refurbished. A top priority is to arrange for a second means of egress from offices where now there is only one long and circuitous way out.

Lieutenant Governor's Office and Adjacent Offices:
Existing Conditions

These first floor offices of the west wing are essentially good solid work of the 1890's but suffer from a run-down look and poorly chosen wall treatments.

Footnotes

1. John and Simeon Skillin, bill for carvings, January 4, 1798. Massachusetts Archives Volume 267, p.43.

2. Amos Lincoln, bill for carpentry, December, 1808. Massachusetts Archives, Financial Records, 1809, Roll 60, Item 363.

3. Charles Storer, bill for stucco work, 1798. Massachusetts Archives Volume 267, page 108.

4. Columbian Centinel, January 10, 1798, as quoted Hitchings, Massachusetts State House.

5. Contract and Specification for Mason Work, July, 1867, reproduced in House Document no 484, 1869, p. 593.

6. S.N. Gifford and William S. Robinson, Manual for the Use of the General Court, Boston, 1868, p. 275.

7. Charles A. Cummings, David H. Andrews, E. Noyes Whitcomb, report on condition of Bulfinch Building, April 13, 1895, Senate Document no. 275, p. 5.

8. Sarah Lowell Blake, report on the fireproof reconstruction of the Bulfinch State House, December 20, 1897. Boston Public Library Government Documents Collection, #6443.11.

9. Charles Storer, op. cit.

10. Samuel Gore, bill for painting, Massachusetts Archives, Financial Records, 1807-1809, Roll 60, Item 354.

11. John Homer, bill for masonry, 1797. Massachusetts Archives Volume 267, page 40.

Main Hallways, First Floor

The many changes in these hallways during the nineteenth century are recounted in chapter 3. As constructed by Bulfinch, these were imposing staircase halls connecting the basement, first floor (Doric Hall level), intermediate story, and second floor (legislative chambers). Bulfinch's original staircases, of which much can be learned from early drawings, had been of a suitable design and scale, but there followed a succession of ill-designed and cramped later staircases and lobbies. Finally, in the 1890's, Everett eliminated the intermediate story and built two simple, imposing staircases. They were a bit heavy in their details, but a big improvement over their immediate predessors.

Around the 1950's, the upper flight of stairs in each hallway was demolished. The upper floor level in each staircase became a separate lobby, accessible only from the Annex. These two lobbies are those of the Senate and Governor, and are discussed in the sections on those portions of the building. In a raking light, the lines left by plaster patching where the staircases were removed can easily be seen (Plan 50,m,m).

The lower half of each staircase survives, though now enclosed by later partitions at basement level.

At first floor level, virtually everything seen in each hallway is the work of Everett, and conforms to the 1899 as-built plan. The door casings leading east and west off both hallways are integral to his remodellings of the stair halls and adjacent spaces. Except where the stairs were, the plaster and its paint layers look consistent, indicating that no portions predate the well recorded extensive plaster renewal by Everett. The ceiling and cornice must be Everett's work, since no one before Everett, not even Bulfinch, had planned single spaces taking up the full north-south dimension of the building.

The marble floors show in early photos of the restoration (Figure 64) and match the description of marble flooring in the specifications for Everett's work (see chapter 3). Pieces of handrailing were added where the lower ends of the removed stairs had been (Plan 50,n,n); these lengths of rail were re-used from demolished portions of the stair.

The door casings and vestibules at the south end of each hallway were designed by Everett, who in putting back doors (rather than windows) at this location was restoring a feature of Bulfinch's plan. Most of the woodwork of the vestibules, including the inner and outer arched sashes, has enough paint layers to suggest a turn-of-the century date, but the doors themselves (both inner and outer) have few layers, as they are replicas of Everett's doors made in the restoration of ca. 1960. Drawings for the

inner doors, and new transom bars directly above them, are filed under contract number G 803 #4 (sheet A4). They are the work of Edward Sears Read, and Associates, Architects. The drawings note that all mouldings are to match the existing. (One wonders if the architect knew he was reproducing 1890's work.) The exterior doors (discussed in the section on the exterior) were also rebuilt by Sears to match the 1890's doors. They were made shorter than the old ones by eliminating the topmost glass panel from each door and adding a similar glass panel to the transom. The glass transom panels of the inner doors appear to date from the 1890's, suggesting that the inner doors were their present height at the start.

The brass chandeliers are rather recent. An 1890's chandelier shows in an early view (Figure 64).

Everett's stair halls were a proud feature of his restoration. Though in fact not accurate, they were definitely touted as restorations of Bulfinch designs. Though the main flight of stairs in each hallway is gone, the spaces are still suitably monumental as entries to the capitol. They deserve a study of their old paint colors to see if Everett had a better idea than the present yellow walls. Lacking the stairs to take up visual space, the large wall surfaces would benefit from some such treatment as displays or hanging paintings against a darker wall color. Considering the thermal shock next to exterior doors, only rugged or unimportant paintings should be used.

Basement

The basement of Bulfinch was completely remodelled by Everett in the 1890's. Most of his work there survives today. The trim of this period in the basement, such as the doors and door casings, is exactly like that in minor offices of the first and fourth floors and is easily recognized. So repetitive is the 1890's work throughout the building that the brass door knobs and escutcheon plates of the basement doors are identical (including stock number) to those of the same date in the Governor's office, except that the latter may be gold-plated.

The 1890's layout of the basement offices can be read from the 1899 as-built plan (Plan 42). Later changes, mostly minor, are easily noted on a walk-through with the 1899 plan in hand. The set of plans prepared by the State Planning board in 1944 shows which changes predated that year.

The most important change was the enclosure by later partitions of the lower ends of the two main staircases ascending to the first floor. At each staircase, this involved closing over one window of the two that had served to borrow some daylight from offices to the south (Plan 42). The 1944 plans show an intermediate stage in the closing-in of the staircases: if the plans are correct, only the smaller partitions, toward the ends of the building, had been installed.

The marble floor of the basement matches the marble flooring used elsewhere in the 1890's restoration, and conforms to the description in the 1896 specification (see chapter 3).

Senate
(Original House of Representatives)

Like the Senate Reception Room, the Senate incorporates materials of three periods: 1790's (Bulfinch), 1860's (Washburn), and 1890's (Everett). In addition, the domed ceiling may date from a fourth period of construction.

Lower Level

The lower level of the room contains no Bulfinch material. Chapter 3 records fully the installation of the wood rustication here by Washburn in the 1860's. The rusticated wall surfaces, including the flat or "blind" niches, the actual niches, and the segmental-arched openings, date from Washburn's remodelling (Figures 51, 55). Certain features at this level of the room were part of the 1890's restoration, appearing in the old photos as of that date. These elements include:

- the brass sconces
- the upper desk, its chairs, the lower desk, and the circular group of seats.
- the lamps on the upper desk, though they have been altered
- The handrail around the three sides of perimeter of the room
- The leather doors at the central closet on the north wall. (These were part of a full set seen in views after the 1890's)

This closet was created in the 1890's: it shows in the 1899 as-built plans (Plan 44) but not in the 1888 plans (Plan 33), which record Washburn's corridor here. The doors are genuine leather, unlike the leatherette doors in the Annex.

- The cornice (or at least elements of its soffit) over the rustication.

Washburn had used a bracketed cornice (Figure 55).

- The flat floor.

Everett restored Bulfinch's flat floor, and must have altered the baseboard of the rustication accordingly. The floor had been inclined through most of the nineteenth century. The incline is well documented and shown in sectional drawings. (See Chapter 3). A view toward the south in the Washburn period shows the

southern end of the floor about level with the arched openings in the south wall (Figure 51).

At this lower level of the room, there have been a few changes since the 1890's. The leather-covered doors in the northeast and northwest corners of the room were replaced at some time with the present ones. The east and west doors have been replaced or rebuilt very recently. Display cases have been inserted into the two southern niches. The barometer and thermometer, which show in photos of the Washburn period (Figure 55) and were preserved by Everett have been removed from the narrow blind niches of the north wall.

Upper Level

In the upper level of the room, a great deal of Bulfinch's woodwork survives. Original woodwork is readily identified by its hand wrought nails, and by the presence, below the many later whites and off-whites, of darken early paint layers, which include some sort of green or gray-green and a pinkish tan. Since it survives only above the mid-height level of the room, the original woodwork of the Senate escaped the stripping of paint layers that was done in the Governor's Office and Senate Reception Room, around the time of Everett's restoration.

East and West Gallery Fronts:

Washburn created the north and south galleries, and the passage below the south gallery, by constructing new exterior walls. Many drawings and sketches predating this show the original flat north and south walls of the room (Figures 49, 50).

Bulfinch's room did have the east and west galleries, however. Thus the columns of these galleries, and the balustraded gallery fronts, are essentially original. They clearly display early paints, and two hand-wrought nails were pulled from woodwork of the back side of the west gallery front (Plan 52d). Some cuts and patches were noticed in this west gallery front, probably pertaining to some of the curious added galleries and small staircases of the nineteenth century (Plan 23).

Upper Level Niches:

The woodwork surrounding the four upper level niches, including the four pilasters flanking each niche, their pedestals, and the balustrades between, are original and bear the early paints. As described in Chapter 3, in the mid-nineteenth-century the niches were fitted with seats (Figure 50) and were accessible from behind (Plan 23). These alterations were not so extensive as to affect the flanking pilasters: a hand-wrought nail, proof of an early date, was pulled from the pilaster at the east edge of the

northeast niche (Plan 52). The sketch showing this niche occupied (Figure 50, left), shows this pilaster intact, as well as the balustrade below the opening. The flat board between the opening and the pilaster does give some hint of disturbance: the one nail we pulled from it was of a cut type common in the mid-nineteenth century.

The southern niches may never have been altered: a large hand-wrought nail was pulled from the flat board just beside the actual opening of the southwest niche.

The documents pose a question about the interiors of the upper niches. Chapter 3 explains that the four original niches, for stoves, at the lower level of the room are accounted for in Charles Storer's bill for plastering in 1798. These lower niches had had keystones (shown in various early views), and are so identified in Storer's bill.

Of the four upper niches, "with Ornaments, heads, and imposts," Storer billed for only two. Although this may mean that two, or perhaps all, of the present niche interiors are not original, they all look the same and look right for the period. Questions about the niche interiors could probably be answered by gaining better access to the fronts and backs of the niches.

North and South Gallery Fronts:

Washburn's north and south galleries have columns, pedestals and balustrades all lacking the early paints and nails. There are iron columns inside these wood ones. Washburn demolished brick walls here, but left the pedimented attic story of brickwork overhead, which had to be supported. Washburn's balusters are a little fatter than Bulfinch's and the dark-painted boards behind them run horizontally, rather than vertically.

At both ends of the north and south balustrades, very clear seams and cuts can be seen where the Bulfinch woodwork and plaster was cut to accomodate the new design. These division lines occur in the flanks of the projections for the niches (Plan 52f). The lines can be traced up through the wall plaster and, as staggered seams, the entablatures.

These lines of division, in agreement with what is seen in early views (Figures 49, 50), show that the plaster surfaces of the original north and south walls were some inches forward of the present plane of the gallery columns, and that the entablatures of the north and south walls were also forward of their present locations (Figure 50). These entablatures were not freestanding, as over the galleries, but built into the plaster walls. There were no pilasters in the very corner where the turn occurred.

This raises the question of the entablatures. As we could not reach them, we only strongly suspect that those over the east and west galleries are original -- a matter easily checked when there is access. As for the north and south entablatures, a good guess is that they are the originals moved farther north and south, and fitted up with soffits and backs.

When Washburn created the north and south galleries, he changed the inner panel mouldings on all the Bulfinch column and pilaster pedestals around the rest of the room to match those of his new gallery fronts. These mouldings all have a Victorian profile and only the later paints.

Gallery Interiors:

As for the interiors of the galleries, a great deal dates from the restoration of 1897. We know from documents that Everett built new walls around the east and west galleries (see Chapter 3) and new ceilings above all the galleries. The tile construction of the walls and metal lathing of the ceilings, all typical of the 1890's work, can be seen from above. Washburn's ceilings had been a little different in design (Figure 55). The present doorways in the north, east, and west galleries are from the 1890's, Washburn's having been different in design and location (Figure 55).

Interestingly, Everett also appears to have changed the pilasters along the back sides of the galleries, though Washburn's (Figure 55) had been similar. Wire nails, with no sign of earlier nailing were found securing the neck mouldings of pilasters in the east and north galleries. In the north and (less clearly) south galleries, where apparently the plaster was not renewed in the 1890's, patch lines in the plaster seem to show that Washburn's pilasters had been about an inch wider than the present ones, though in the same locations.

We did not investigate the elliptical windows to see if Everett renewed, or simply left, these features of Washburn's design.

The present furniture of the north gallery dates from the 1890's: the cresting over the gallery rail can be seen in old pictures (Figure 53).

The little dumbwaiter in the north gallery is noted on the 1899 plan (Plans 44, 45) and, we guess, dates back to Washburn.

Ceiling:

The puzzle of the domed ceiling is explained in the History section. Up to the level of the circular cornice, there is no problem: the "trophies" and "Ornaments" of the four pendentives

are in Storer's 1798 bill, as are the "Raffle leaves" in the circular cornice. Above cornice level, however, the existing designs of the plasterwork simply do not fit the elements clearly listed in Storer's bill. There has been extensive revision the ceiling. Better access from both sides, allowing aggressive probing, might help to find out what has happened.

The earliest views of the room, from the 1850's, are Bryant's cross-sectional drawing and a newspaper illustration. These clearly show large radiating flutes in the dome (Figure 50). Are these the present flutes, which seems likely, as the resemblance is perfect? Or are they similar, but earlier ones? Storer's 1798 bill for plastering the ceiling clearly lists "40 large flutes" (see Chapter 3). At present there are 36. Apparently, at some time since construction a ceiling with 40 large flutes was demolished, and a new design with 36 was put up. There is one difference between the flutes shown in the 1850's views and the present flutes: the flutes in the 1850's lacked the doughnut shaped ventilator inserts which Washburn installed in the 1860's (Figures 50, 51). If the present flutes date back to the 1850's or beyond, Washburn's doughnuts should be possible (by probing) to identify as additions. If Washburn renewed the flutes entirely in the 1860's (and then no doubt the whole rest of the dome) the plaster of the doughnuts would be integral to that of the flutes.

The present ventilator grilles in the doughnuts date from the 1890's (Figure 53); before this the doughnuts had been filled with glass (Figure 51).

Further confusing the question of the domed ceiling is the fact that the laths, seen at several points through holes in the 1890's fireproof back-plastering, are fully hand split. It would seem that whoever revised the ceiling left the original laths and perhaps base coat plaster.

Support Rods:

One structural feature of the ceiling was definitely added in the 1890's. In the space above the ceiling, eight vertical hanger rods were added around the perimeter of the ceiling. These rods are spaced along the inner surfaces of the four original exterior walls of the attic story. There are two on each wall. They descend from eye-bolts in the brickwork down to stirrups, which support large beams. These beams are not easily seen. The outer, threaded ends of the eye bolts pass to the exteriors of the attic story walls, where they are secured with bolted plates. The plates first appear in exterior photographs at the time of the 1890's restoration.

The exact purpose of the rods is not known, nor is the reason why

the previous support at these eight points had been found insufficient. The domed ceiling was extensively supported by new vertical rods in the 1890's work.

Chandelier:

The chandelier is from the 1890's and should be preserved, along with the other elements of that restoration (Figure 53).

South Passage and Iron Stair:

The passage along the south wall of the Senate is a feature created by Washburn. We have not studied it closely for possible changes by Everett. The iron spiral stairs to the pages' lounge (Figure 52g) is of the 1890's and is described in the specification of 1896 (see Chapter 3). Washburn's similar stairs here had not been in exactly the same location and had opened onto upper rooms at different levels from the present lounge. This is shown most clearly in the plans of 1888 (Plans 33-35).

Pages' Lounge:

The two spaces used as a lounge and locker room by the pages (Plan 52 h,i) are just as in the 1899 as-built plans (Plan 45).

Hallway (to East of Senate):

Except for the removal of the stairs from below, this hallway is largely as designed in the 1890's restoration (Plan 44). The built-up cornice lighting is recent. The entries to the Senate and Senate Reception Room no longer have inner and outer sets of doors, as in the 1890's. Along the east wall, the 1890's doors have been re-used on the opposite sides of the openings, inside the Senate Reception Room (Plan 51w). The 1899 plans show only the leatherette-covered doors at the north entry to the hallway: at present there is also an inner set of wooden doors that look like 1890's items that may have been elsewhere at first.

The chandeliers were bought new in the early 1970's, as clearly recalled by persons asked.

The ceiling is lower than the glass transom of the door onto the portico. This is as designed in the 1890's. It is not the case in the Governor's hallway on the opposite side of the Senate. The difference in ceiling heights is shown on the 1899 as-built cross-section.

Senate Reception Room (Original Senate Chamber)

In Chapter 3, in the narratives describing the original construction of the Bulfinch Building and the rennovations of the 1860's and 1890's, the following facts concerning the story of the Senate Reception Room are established.

The room was built essentially as shown in Bulfinch's own plan (Plan 1), and in other drawings and sketches made during the years prior to the 1860's (Plan 3, Figure 57, Plan 16). The features of this original design included two fireplaces spaced between the three windows of the east wall, where now stand two engaged columns (Plan 51q). At the west side of the room, an entirely different arrangement of doors and niches existed, shown correctly in Bryant's sectional drawing of 1855 (Plan 16). This included a different gallery balustrade and short columns of some kind supporting the entablature over the gallery in place of the present tall engaged columns.

When the Bryant addition was built in 1853-54, the central window of the north wall was blocked in solid (Plan 22a, Plan 23a), the east window rebuilt to accomodate a door (Plan 22b) and the west window rearranged somehow to receive light, through at least the upper portion, from a light well (Plan 22c, 23b, Figure 58a).

In Washburn's remodelling of the 1860's, the fireplaces (by then already once replaced by Asher Benjamin) were pulled out, and two engaged columns were installed where the fireplaces had been (Plan 25b). The matching engaged columns on the west wall were installed at the same time and the entire west wall and gallery front redesigned with doorways, niches, and other features of a heavy Victorian character (Figure 58). To make room under the cornice of the east wall for the new engaged columns to fit, the portion of the east wall beneath the tympanum was thinned down (that is, the plaster surface was rebuilt about 8" further east) (Plan 34a). The central window of the east wall, and perhaps for a few years the two others, were closed over. The appearance of the room as remodelled by Washburn, including some further modifications of the former windows of the north wall, is clearly shown in the Brigham and Spofford drawings of existing conditions in 1888, and in old photographs (Plan 33, Plan 34, Figure 61). In one photo of this period the ghost of the closed-up central window of the east wall can be seen.

In the 1890's restoration, the most prominent features of the 1860's remodelling were retained: the four engaged columns. Meanwhile, the heavy Victorian doorways and niches of the west wall were removed, and the more Federal-looking doorways now present were installed. The heavy gallery front was rebuilt in a simpler form more like something Bulfinch might have designed (Figure 59). The middle window of the east wall was reopened

(Plan 44e) and the three former window openings of the north wall were again remodelled to essentially their present form, with a door in only the eastern one (Plan 40c). This all shows clearly in many photographs, and in the 1899 as-built drawings.

Little change has occurred since the 1890's restoration.

Dates of Existinig Elements

Woodwork:

The woodwork consists of many items from each period of construction and alteration. Identification of the date of each piece is made more difficult by the fact that the paints were almost thoroughly stripped around the time of the 1890's restoration. Aggressive sampling would undoubtedly turn up remnants of paint evidence useful in dating woodwork, as well as nail evidence, but is not warranted until the present new paint job is to be disturbed for other reasons. Even so, many of the elements can be dated.

Fortunately, the full sequence of paint layers, back to an original (now discolored) green or blue-green, survives on the woodwork above and including the column capitals. This original woodwork includes the entablature elements for which Jedediah Lincoln billed, in 1797 [1]. Lincoln's "326 feet of Cornice" is the modillioned upper trim around the whole room, including on the entablatures over the four free-standing columns (Figure 58b). This cornice, at least around the central part of the room, is easily seen from above to be original -- full of hand wrought nails and other early features of construction.

Lincoln's bill for "144 feet of Arct + Frieze" pertains to the lower elements of the two entablatures that run east-to-west over the four free-standing columns (Figure 58c): a length sufficient to cross the space four times (back to back). Also displaying early green paint (and thus now incorrectly painted white) are the two wooden arched mouldings along the tops of the tympanum areas of wall at the ends of the barrel vault (Figure 58d): together (east plus west) these make up the "76 feet 10 Inch Compass" in Lincoln's bill.

In 1975 David Hart X-rayed various woodwork elements to produce evidence in support of a prior SPNEA study of the room. The octagonal pedestal of the southwestern free-standing column (Plan 51r) was found to contain nails of various dates including hand-wrought: it must therefore be original, and the other three as well. The four free-standing columns show other evidence of their early date: their capitals differ in many subtle ways from those of the four Washburn engaged columns on the east and west walls.

The pilasters along the north and south walls, including the mitered corner ones, are original. Hand-wrought nails appeared in the x-rays of the pedestal caps of those in the northeast and southwest corners (Plan 51s,t), and the original paint survived on the northeast one. The caps of all the pilasters located on the north and south walls share with the capitals of the free-standing columns the details of design associated with the early period, and contrast with the pilaster caps and column capitals of the Washburn period.

In Washburn's remodelling of the 1860's, the portions of original cornice directly above the new engaged columns were altered so as to miter forward (Figure 58e), on both the east and west walls, whereas previously the cornices had been straight runs. The mitered areas are secured with a late type of cut nail and cover up small lengths (about 2") of the remaining undisturbed portions of cornice, including the paints which predate the alteration. Portions of the mitered sections were seen to be re-used earlier material: paint ridges on the plancia boards of the altered portions indicate where modillions had been when the re-used portions of cornice were in their previous locations.

Somewhat indistinct rectangular patches on the soffit of the western cornice (Figure 58f) almost certainly show where some of Bulfinch's small rectangular columns along the gallery front had stood.

Though two original pilaster pedestal bases have been positively identified, there appears to have been some rebuilding and perhaps reuse of various elements of pilaster pedestals and the adjoining wainscots and baseboards. Original (deeply carved and close-spaced) fluted dado capping alternates confusingly with later poorer work; at least two versions of the baseboard mouldings exist. At this time a full identification by paint layer study would not warrant the disturbance to the recently applied paint.

The window casings can be dated well enough. Being above the line where the paint stripping stopped, the arched window architrave mouldings of the south wall show the original green paint and, with the matching ones on the north, are probably portions of the "107 feet Compass" architrave for which Lincoln billed in 1797. The panelled and curved soffits within the arched window heads of the south wall are probably portions of Lincoln's "107 feet Compass" panel side casings. The matching straight lengths of architrave and panelled casings, on the lower portions of the north and south windows, may figure into Lincoln's items for "286 feet Double Archt" and "416 feet panel Side Caseings." On the north wall, however, the panelled casings, straight and arched, have been rebuilt narrower when these windows were filled in (Figure 58g).

Three mahogany window seats which appear to be original survive in the southern windows and may be three of the original nine for which Lincoln billed. Their back panels (just below the windows) and the woodwork below the seats themselves have been rebuilt. An examination of the western seat (Plan 51u) revealed newer work and an older piece of moulding tossed aside.

The fluted impost blocks of the northern and southern windows must be a portion of the total "37 ft fluted Impost" in Lincoln's bill. The measurement is about right for the eighteen originals if the length of each is measured along all fluted sides. On the north these original imposts contrast markedly with the later, weakly fluted bands that connect them across the closed-in windows.

The east wall below the tympanum (Plan 51v), having been wholly rebuilt in the 1860's and again revised in the 1890's, seems to have no Bulfinch woodwork. The arched window casing architraves show none of the early green paint and do not match in profile the original architraves on the north and south walls. The architraves of the outer two eastern windows have slightly different profiles from that of the center window. The exact story of the closing over of windows here in the 1860's has not been worked out. A report of 1869 firmly states that all three windows were closed over [2]. None of Bulfinch's window casing architraves survive here. Photographs and drawings from the period show only the center window walled over completely, with window casings intact (if not actual openings) on the two flanking ones. Probably the casings of the two outer windows today are those in the old photographs, while the casing of the center window dates from the re-opening of that window in the 1890's restoration.

An interesting example of not just re-use, but double re-use, of early woodwork is the 74 balusters of the gallery balustrade. Clearly showing original paint, they are all but ten of the "84 Senet Gallery Balisters" turned by Joseph Howe in the 1790's [3]. Washburn re-used them in his heavy balustrade (Figure 58) and Cummings again in the present balustrade. The back sides of the two engaged columns here show patches where Washburn's balustrade fitted into them.

As already mentioned the present doorways of the west wall date from the 1890's restoration (Figure 60). The leather or leatherette-covered doors show in early photographs of this period, differing somewhat from ones used earlier by Washburn (Figure 58), are gone now, as are leatherette panels that had occupied the typical location of transoms. Quite recent wood panels occupy the positions of the leatherette "transoms," and the present wooden doors give every evidence of being the re-used 1890's ones from these same three openings, but from the west

sides of the door casings (facing into the senate hallway) (Plan 51w). There are no doors at these western locations now, but old photographs and the 1899 as-built plans for the restoration show the original double set of doors (Plan 44). The hinges on the present doors match hinge marks on the western sides of the casings.

The doorway in the gallery dates from the 1890's: others (north and south) appear in earlier views (Figure 58).

Plasterwork (decorative):

The greatest treasure of the room is the plasterwork of the barrel vault. Seen from the attic, the hand-split lathing and early plaster are clear physical evidence that this is original work. Besides the "42 1/2 squares Rough furring & ceiling" (the strapping and lathing of flat surfaces in the room), Lincoln charged for "13 1/2 squares [1350 square feet] of Compass" furring and ceiling: the supporting lath and strapping of the barrel vault.

The actual plastering was done, and billed in 1798, by Charles Storer [4]. Except for the very central ornament (which looks later) around the hanger for the chandelier, all the plaster ornaments on the ceiling and tympanums can be accounted for on Storer's bill. This includes the bands of "Golosh [guilloche] and Flowers" separating the panels and the "half Golosh" mouldings along the edges of the tympanums (Figure 58d). Storer's "214 feet straight pannel moulding" is all the panel edging that runs east and west and thus does not curve (Figure 58h). Storer's "148 circular do," that is 148 feet "circular" panel moulding, is all of the same panel edging that runs north and south, on a curve (Figure 58i). Storer's plain plastering for the background of the barrel vault is listed as 146 yards 5 feet "circular in Ceiling": this translates into 1319 square feet, on Lincoln's 1350 feet of lath. Storer's "39 yds 3 ft plan Stucco work in Arches" survives intact in both the east and west tympanums, on Lincoln's hand-split lathing. This item in Storer's bill may have been meant to include the back (gallery) side of the west tympanum: this area was replastered in the 1890's on metal lath. Storer's "State Arms with Ornaments" survive on the east tympanum. On the west, his "Federal do [arms] with do [ornaments]" have been modified to include a clock rather than a shield. A clock face shows here in a photograph of the Washburn period (Figure 58) and a later clock face in a view showing the 1890's restoration (Figure 59). The present clock has a modern electric works. The earliest clock may have been put here around 1800, when clocks were ordered for both the House and Senate [5].

The location of Storer's "34 feet Frieze" is not yet known. It

may have been below Lincoln's "33 feet Ballistrade" on the gallery front (Figure 57). Of Storer's "36 Patteras for Windows," the 24 on the fluted imposts of the north and south windows are still there; there had been twelve more on the eastern windows. The present ones on the eastern windows probably date from the remodellings there, though perhaps some originals were re-used.

Plaster (plain surfaces):

The new plaster on metal lath used extensively throughout the building in the 1890's is found throughout the entire area within the gallery of this room. The new lathing can be seen from behind and above. Photographs from before the 1890's work shows the earlier arched ceiling within the gallery (Figure 58). In the main part of the room, an extensive inventory of the flat plaster surfaces was not done and would entail making holes. The smoothness of the flat wall and ceiling surfaces below cornice level contrasts markedly with the rougher Bulfinch-period plaster surfaces in the two tympanums. During earlier study of the room some areas of wall plaster were found which were apparently older than others. Test holes to inspect the lath type and other evidence should be made before sizeable areas are ripped open for some practical purpose.

Paint evidence on plaster; unresolved:

While the early green or blue-green on the woodwork was clearly understood in SPNEA's earlier study of the room, there was never a full sense of the evidence relating to the wall color. A yellow or straw color was found on the obviously original plaster of the tympanums. Similar evidence was found on the wall plaster below, much of which had been re-surfaced or replaced entirely. Some traces of glue and some kind of paper fibers were found on some sections of wall plaster which seemed older than others. That the walls had been papered originally is still possible, though the early report did not establish the age of the plaster surfaces that had the remnants of paper. In the earlier study, it was posited that the straw color of the tympanums had probably been used on the walls.

Documentary evidence has now been found (see chapter 3) indicating that the walls were papered at a very early date and probably at the start. The next time the room is painted, comprehensive analysis and testing of the plaster, paint, and paper evidence on the flat wall surfaces could be made.

A Puzzle Remaining

The 1975 report on the architectural evolution of the room correctly and positively established that the plaster surface of the west wall below the tympanum had been reconstructed about 6" further east at the time of Washburn's remodelling (Plan 51v). This change was made to make room for Washburn's two grand engaged columns to fit below the entablature. As first built by Bulfinch, with two fireplaces here instead of columns, the wall surface had been in a plane with those of the tympanum and of the two flanking areas of wall to the north and south. Thus the entablature did not have a soffit, but was set into the wall.

Evidence for this, as identified in the 1975 study, included

- positively identified traces of plaster (beneath later paints) along the forward edge of the bottom of the entablature, where the Bulfinch plaster wall had been.

- the fact that the two flues for the Bulfinch fireplaces (still visible as remnants in the attic but cut back below cornice level) had projected too far inward from the brickwork to accommodate the present plaster wall.

- evidence that the soffit board of the entablature below the east tympanum is not original or has been re-used from another location in the room.

A question identified in the 1975 study still should be answered. The two pilasters at the sides of the area of wall beneath the tympanum extend all the way back (east) to the new wall surface. Their shape, in plan, is such that they seem custom-made to fit their present locations, in between wall surfaces that are offset in respect to each other (the walls in the north and south ends of the room being about 6" farther west). One would expect these pilasters to be Washburn's. Then why, as clearly seen in every detail and by the presence of the original green paint, are their capitals Bulfinch's. These capitals are too deep in plan to have come from two of the regular wall pilasters and they show the early green paint over their full depth.

Could they have been re-used from the matching locations beside the gallery on the west side of the room? There were pilasters here in Bulfinch's time, but the capitals there now are obviously Washburn's.

Chandelier

The chandelier was installed by Cummings in the 1890's restoration. Photos predating this restoration show an earlier, really wonderful, Victorian gasolier. The present chandelier should be retained as an integral part of the 1890's work in the room.

Old photographs postdating the 1890's restoration show six matching small chandeliers, now gone, along the north and south sides of the room.

As seen from the floor of the room, the chandelier appears to be similar in materials and conditions to the chandelier and wall sconces, of the same date, in the Senate. (See section on Senate.)

Attic, Ventilators, Roof

The ventilators in the ceiling, which look Victorian, appear in views of the room as remodelled by Washburn (Figure 58). There is little hint what originally occupied these locations in the ceiling.

The spaces between the roof and the ceilings of the northern and southern sections of the room were made over, in the 1890's, to a "Store Room" and "Messenger's Coat Room," as shown on the 1899 as-built plans (Plan 45). These spaces, with their windows opening onto the space above the arched ceiling, survive today and show the same types of woodwork details and hardware as seen elsewhere in the 1890's spaces. The metal lathed ceilings of these spaces are easily seen from above.

In the large space above the Senate Reception Room ceiling, there is no exposed and apparent element of the original wooden roof structure, the roof having been re-framed in metal in the 1890's.

On the far west side of this space, against the brickwork of the higher central portion of the building, is evidence of two earlier roofs. Where the present roof juts upward to the north to join with the Brigham extension of ca 1890 (Plan 46a) is an area of brick wall that was formerly an exterior surface, until the 1890's roof was built enclosing it. Here are two flashing lines in the brick. The lower one must be for Bulfinch's original roof, which was of slightly steeper pitch than the present roof. The lead flashing is set into early brickwork laid in lime mortar. Below the flashing, that brickwork is crudely laid; above the flashing, and cut to fit it, are bricks laid in neat Flemish bond.

Higher on this surface is a step-flashing of a later date, secured with cut nails. This is probably the flashing for the higher roof of Washburn's Blue Room, which had windows above cornice level.

In this same area, above Bulfinch's flashing, are preserved undisturbed paint layers that presumably tell the story of the many nineteenth century exterior paint colors applied to the brickwork.

The side of the volute of an attic story pilaster capital on the north wall of the Bulfinch building can be seen in this area, its front (north) surface being flat up against the brickwork of the Brigham extension.

Summary

The Senate Reception Room is famous for its beauty. Eight grand Ionic columns form a square beneath Bulfinch's splendid vaulted ceiling, and the Ionic order is echoed on the wall surfaces by Bulfinch's pilasters.

Four of the columns are Washburn's; as designed by Bulfinch, the room did not include the concept of four-way symmetry beneath the vaulted ceiling. Instead, as reported in the 1798 Columbian Centinel, "two screens of Columns, support with their entablature a rich and elegant arched ceiling" [6].

Washburn's remodelling was highly successful: two fireplaces, which must have seemed a little out of scale with such a large room, were pulled out, and the much more monumental columns installed. An attempt to restore the room to its original design might not improve its appearance. In addition, such a restoration would not be possible at a high level of scholarly accuracy, as any detailed evidence about Bulfinch's fireplaces (or Benjamin's later ones) must have been destroyed when the wall surface in that area was moved back.

Like the rest of the Bulfinch building, the Senate Reception Room was skillfully remodelled by Washburn and then competently made to look more Federal again by Cummings and Everett (the present west wall). As in the rest of the Bulfinch building, these two later periods of work are worth preserving.

Conditions

Having recently been repainted, the Senate Reception Room is in good condition. Three conditions are worth noting. First, the drapes are fading badly because of a lack of UV-protection in the windows. A variety of types of UV-filters are available that can be fitted to the windows.

Secondly, the original skim coat of plaster in the two tympanums will continue to peel over the years. Only those areas that were becoming detached were re-adhered under SPNEA supervision in the 1970's using an acrylic emulsion adhesive ("Liquitex Gloss Medium"). Holes were drilled into voids behind loose areas, and the adhesive injected with common plastic glue injectors.

Areas that were not loose at that time, or indeed now, will continue to loosen. As these tympanums are the only areas of wall bearing an undisturbed record of paint colors, the skim coats are worth saving on account of their paint evidence. As future repaintings are done, loose spots of skim coat should be adhered.

Finally, there are plaster cracks on the north side of the barrel vaulted ceiling. This ceiling was readhered by SPNEA several years ago. One area that had fallen (the northeast corner swag and its backing plaster) was replastered by an independent contractor; the original swag was pieced together by SPNEA and installed by the contractor on new plaster.

One of the cracks surrounds the new plaster, at its joint with the old. According to SPNEA's foreman, Andrew Ladygo, that crack appeared immediately after the new plaster dried. It may indicate harmless differential movement between old and new.

In the northwest corner of the ceiling, there are plaster cracks where the adhesive, applied by SPNEA, was too thick and "slumped" out of place before it dried. More adhesive is needed, in this one area only, where a dangerous condition may exist. The rest of the ceiling is well adhered.

Footnotes

1. Amos and Jedediah Lincoln, bill for carpentry, 1797. Massachusetts Archives, Volume 267, p.60.

2. James Stone, The Improvements of the State House, the Investigations There of Investigated, and Misrepresentations Exposed, (Boston: A. Williams and Co., 1868) pp. 16-17.

3. John Howe and Son, bill for turnings. Massachusetts Archives Volume 267 (1797-8), p.14.

4. Charles Storer, bill for stucco work, 1798. Massachusetts Archives, Volume 267, p. 108.

5. Chapter 159, Resolves of 1799, January Session, Passes March 4, 1800.

6. Columbian Centinel, January 10, 1798, as quoted in Hitchings, Massachusetts State House.

Doric Hall

Chapter 3 documents very well the many nineteenth-century changes to Doric Hall, including Washburn's new ceiling and floor, and his complete rearrangement of the openings through all four perimeter walls. Chapter 3 also recounts Everett's scholarly restoration of the Hall to approximately its original appearance. Almost all elements of Doric Hall date from this restoration of the 1890's. There is one interesting survival of Bulfinch's work.

A comparison of the photographs of the Hall as remodelled by Washburn (Figure 39-41) and as restored by Everett (Figure 42,43) show how much new material Everett used.

The Everett items still extant include:

- The plaster columns and their pedestals (enclosing iron or steel columns). Bulfinch's wooden originals, with the visible cracks and seams that would be expected, show in the photos predating the restoration.

- Door casings, east and west walls. These differ in design and location from those seen in photos from the Washburn period, but more closely match the still earlier ones, no doubt original, in Bryant's section of 1855 (Plan 17). Those shown by Bryant are taller.

- Door casings, north wall (Plan 50,0) and window casings, south wall (Plan 50p). Though close in design to those in photos of the north wall in the Washburn period, these casings nevertheless have only the same paint layers (approximately) as the door casings of the east and west walls, and are made, at least in part, using wire nails. Thus they date from the Everett restoration.

- Doorway, South Wall. Exterior views show how fully the doorway was redesigned by Everett, who re-established here an arched transom window as in the Bulfinch design. A rather complicated vestibule existed here just prior to Everett's work, as shown in the 1888 plans. Though the present casing is Everett's, the doors themselves, the transom bar over the doors, and the wood transom panel above the bar, all date from the restoration of ca 1960. These items bear only very recent paint layers. Shop drawings for the new doors and transom, by Gregg and Son, are filed under number 1957 #1. The drawings note that the existing doors are to be copied exactly. It appears that the new doors were made lower than the old ones in the same way as this was done at the flanking entries to the stair halls: by incorporating what had been upper panels on the doors into a stationary transom.

- Corner Niches. The four corner niches represent a compromise by Everett between accurate restoration and redesign. Bulfinch had had no actual niches in Doric Hall, only four tall archways at 45° angles in the corners of the Hall, opening onto windows. The surrounds of the tall arched openings had originally been plain, if one can trust the Bryant section in this detail (Plan 17). Washburn put mouldings around these arches (Figure 40) and converted the two southern corner openings from windows into doors. A sequence of alterations to the spaces within the northern corner arches occurred during the nineteenth century: doors, passages, a niche.

The present plain arches, enclosing classical niches on the north and windows on the south, are the work of Everett. They are not as tall as those (no doubt Bulfinch's) which are shown by Bryant. It is interesting that Bryant's plan of the upper portion of Doric Hall (Plan 21) clearly indicates that the arches were not inset, as they are now, from the corners of the adjacent piers. Other old views show the present plan, and Bryant may have been wrong.

- Niche, center north. Everett designed the present plain niche here, apparently without precedent. The previous temple for the Washington statue was demolished.

- Plaster walls. Everett restored Bulfinch's flat plaster walls, eliminating later heating ducts on the north (Figure 37) and projecting flag display cases on the east and west walls (Figure 41). The original flat plaster walls show in many early plans. Sampled at several points, the present wall surfaces appear to be all the same--renewed by Everett as part of a thorough fireproofing of this space.

- Dado cap. The present dado cap (or surbase) on the plaster walls is surely that applied by Everett, a feature not shown in any earlier views or drawings.

- Ceiling. The present ceiling is presumably that of Everett, restored from Washburn's coffered ceiling to the earlier flat one seen in all the earliest views and drawings.

- Cornice. The cornice is made up (at least in part) using wire nails and thus cannot predate Everett's restoration. Views from the Washburn period show what was probably the original cornice, modified to accomodate the nineteenth-century added projections of the wall surfaces. Everett copied the profile of this earlier cornice.

- Floor and heating registers. The marble floor matches those used elsewhere in the 1890's restoration and conforms to the description in the 1896 specification. The brass or bronze

heating registers in the floor appear in photographs taken just after the 1890's restoration (Figure 43).

- Chandeliers. The brass chandeliers are those in the photos showing Everett's newly finished work (Figure 43).

What did Everett not change or renew? Only one element predates his restoration, and escaped any earlier remodelling. The uppermost, or cornice, portions of the entablature blocks over the columns are Bulfinch's. Whereas the Everett woodwork has only white and off-white paint layers, these squares of cornice have many earlier layers going back to some interesting early colors. A fully hand-wrought nail (absolute confirmation of an early date) was pulled from one of the rows of circular guttae in one of the mutule blocks.

The lower (architrave and frieze) portions of the entablature sections could perhaps also be early. If so, they were stripped of early paint. They probably date from the 1890's. These lower portions should be checked, if ever worked on, for early nails or the disused holes of early nails.

The cornice sections over the columns bear the only surviving evidence of Bulfinch's early woodwork color in Doric Hall. They match, in design, the main cornice of the room, both the present one and the earlier (probably original) one in old views.

As restored by Everett, Doric Hall mostly replicates the Bulfinch design. It is an early example of restoration. It would have been too much to expect Everett to preserve, as we would today, the actual columns of Bulfinch: they felt that more structural support was needed.

Brigham and Spofford Extension

The handsome rear extension to the State House, designed by Brigham and Spofford in 1889, was lavishly finished with fine marbles and mahoganies on its principal stories (second and third) and with quartered oak, terra cotta, glazed tile and lesser amounts of marble elsewhere. Original paint schemes were subtly varied, drawing largely on the warm earth tones still apparent in the mosaic tile floors. Plaster ceilings were often complex in design reflecting the delicate classical motifs of the Neo-Federal style or the heavy coffering of the Renaissance Revival style. Walls were sometimes expensively covered with a variety of period coverings and frequently served as a backdrop for finely crafted, built-in furnishings. Finally, highly innovative light fixtures supplemented natural light filtered through stained or plain glass.

While some of these features, most noticeably paint schemes, wall coverings and lighting fixtures have been lost, many remain, and with simple cleaning and polishing, can be restored to their former luster. Original paint schemes can also be restored for relatively little effort or cost. Reinstatement of lost features such as stained glass windows or skylights, rare wallcoverings, and light fixtures would require more time and effort. It should be remembered, however, that the Brigham Extension was originally constructed to a very high standard and that there is much to be said in favor of respecting such a standard.

The transition from Bulfinch's Doric Hall to the Brigham extension is made on the main floor through a vestibule and an area designated as the Senate Stair Hall through Memorial Hall (or the Hall of Flags) and into the Main Stair Hall. Here the architectural elements of primary significance are the mosaic floor, the fine marble wall and trim surfaces and the elaborate ceilings.

The floor has only the most minimal number of missing tesserae and small cracks; in general it is in very good condition and well waxed (Figure 76).

All of the marble was originally well-polished, but has been subsequently waxed. In testing methods of cleaning and wax removal, it was found that use of an industrial strength detergent at a relatively high concentration with hot water proved effective on a small scale. The tests revealed that the waxes had gone on over a surface which was beginning to get slightly pitted (though not, in spite of decades of cigar smoke, stained). If wax removal is done, repolishing would be in order before reapplication of any sort of protective finish.

The ceiling in the Senate Stair Hall (Nurses Hall) has its

original paints in the coffers, as well as gold leaf. The paints seem to have discolored, appearing to have been lighter and brighter originally, with green and light blue-grey predominating (Figures 71,72).

Access problems prohibited any investigation of the plain painted wall surface in the domed areas around the skylight of the Hall of Flags, but a ca. 1920 photograph (Figure 73) suggests that the present paint is not original. The brass railing in the Hall of Flags appears to be polished brass. The animal head posts appear to be bronze with the resinous or chemical dark brown patina. It is not clear that the now shiny animal heads and leaves were originally intended to be polished. The patinated portions of the posts are covered with green spots and bright drip marks that appear to be the result of polish residues deposited during the polishing of the rail. One hypothesis would be that the heads and leaves were originally patinated and, being prominent parts of the post, became spotted from polish and subsequently were polished in order to make all the elements appear homogeneous. The shiny area of each head varies from post to post.

Vestibule, Senate Stairhall, Memorial Hall

The mosaic floor remains in very good condition, as does nearly all of the hall material (Figures 77 - 80).

The light grey and nearly white marble baseboard, wainscot, and carved trim elements (such as pilasters and door surrounds) need cleaning; in some cases, simple dusting will help. All are original. Polishing, while not necessary here, would help to reflect light in darker areas.

The walls at all levels of the Senate Stair Hall have from nine to twelve layers of paint. On the first floor, above the sanitary tiles, the original color is very light yellow. On the second floor the original color is a very light grey-green. On the third floor, a light-to-medium warm ochre is the first color on the walls, while on the fourth there is a light, slightly yellowy green. It is interesting to note that the "deeper and cooler shade of green" (cf. chapter 3) is present at the fourth layer up from the substrate. The ceiling presents a play of various light warm yellow-ochres, light yellows, and creams or off-whites. Nearly each change of plane in the moulded areas has a change of color, subtle but with the effect of emphasizing the well-detailed design of the ceiling coffers, elaborate in the central areas and simpler in the corridors. As nearly as could be determined by testing, this ceiling treatment is present on the levels of the second through fourth floors.

In other words, while the paints original to the ceiling are indeed the "tinted water colors" referred to in the construction

documents quoted in section 3.5 on the Brigham and Spofford Extension, the colors are not the "delicate sunny green" described there. The "sunny" quality is in the subtle yellows and light ochres.

State House maintenance crews have informed the team that sections of the plaster ornament have begun to loosen and fall due to the recent installation of a computer center on the floor above. This problem should be resolved before more of this handsome ceiling is damaged.

On the columns in the central area of the stair hall were some seventeen layers of paint, all of them some slight variant of the same ivory, with the variations being toward a whiter or yellower ivory.

A most interesting painted wall area exists just outside the small doorway to the gallery of the House of Representatives. There, flanking a memorial, are two painted panels with stenciled borders. The green ground of these panels may be original, as the only paint under it is a slightly grey tan. If so, it has faded and gone slightly yellowish due to darkening linseed oil but nevertheless suggests an approximation of the original green wall color described above.

In general, the greens, ochres, and terra cotta reds found in most of the rooms of the Brigham extension reflect the hues and color values of the colored tiles in the mosaic floor. The effect must have been one of certain color unity from floor to floor, as whatever areas not covered by wallpapers of various sorts (cf. Figures 85, 95 and 117, for example) or fine woodwork repeated these basic colors from the Main Stair Hall floor design.

The marbles of the Main Stair Hall, Senate Stair Hall, and Hall of Flags are well-documented in Chapter 3 and physical investigation confirmed what was already known.

On the iron staircases, however, testing and analysis did reveal some hitherto unknown information.

The four major staircases in the Brigham extension are finely finished with cast and wrought iron soffits, stringer panels, newels, and railing. These are: the main staircase (with its extensions above third floor level), the staircase outside the State Library (with its basement extensions), and the staircases to the upper floors outside the Senate and the Governor's suite.

These staircases are all in excellent condition, lacking only the lighting fixtures that originally stood on some of the newels. The metalwork of the staircases is now partly painted black and

partly "bronzed" in a dark metal-flake paint.

The original finishes of the staircases were more lively. The staircases were not treated uniformly, however. As Chapter 3 records, the original plan to bronze-plate some of the ironwork of the staircases was abandoned, and painted finishes were used instead. Indeed, there was no evidence of plating on any of the staircases. Instead, we found interesting paint finishes, and applied metal leaf.

Through paint layer study, we did note various lighter and darker greens on the different elements of the main staircase and that outside the Senate, plus some areas of paint the same color as the marble with which portions of the staircases are made.

A description of 1894 (see chapter 3) mentions silvered soffits of the rear Stair Hall (outside the State Library), as well as silver leaf on the newel posts.

The only metal other than iron that we have found on the staircases is solid bronze used for the small oval medallions in the railings of the staircases beside the Senate and Governor's Office. These medallions have been overpainted with bronze paint, which should be removed.

Basement and First Floor

Testing and analysis of the rooms on these floors was kept at a minimum for two reasons: such original finishes as were left were largely obscured by later material applied over them; the time was needed for the more significant spaces on the upper floors.

Two items bear mentioning, however. The decorative metal door grilles on the doors in the basement are brass-plated iron. They can be cleaned, replated if necessary, and coated with a protective acrylic varnish.

The original woodwork is oak and can be cleaned and refinished with a clear finish, as long as it is not stripped and subject to loss of its stain and filler.

In rooms such as 122 through 128 where original plaster ceiling and fireplaces remain, the same cleaning and appropriate painting can be done.

Second floor

Again, in order to allow for more extensive testing and analysis on the third and fourth floors, testing and analysis on the second floor was kept to a minimum. There are, however, finer

finishes on some of the rooms on this floor, including the Treasurer's Office, where unfortunate later ceilings and partitions severely impeded attempts to get access to original areas.

This does seem an opportune point at which to make general mention of the door hardware and radiator covers throughout the Brigham and Spofford Extension. Many of the more important doors in the Extension have cast ornamental door handles and lock plates. These appear to be bronze. The original character of the finishes of these items has been obscured by tarnish, by the presence of various discolored coatings, and in some cases by very aggressive cleaning and abrasive polishing.

A number of offices were examined for evidence of bronze or brass plating. While no plating was found, it was determined that there were several layers of "bronze" paint, rather light and bright in color. There is reference in the construction documents to "bronzing and lacquering" radiators at the time of construction (cf. Chapter 3).

The bronze trim which edges the marble fireplace surrounds in many offices appears to have dulled somehat, though it could not be positively determined that it had ever had a high polish.

The marble, on the other hand, clearly was originally well polished. The marble, brickwork, and glazed titles were generally in good condition.

Third Floor

The offices on this floor in both the east and west corridors contain a great deal of the original materials, if not original treatments and finishes, and demonstrate the quality of design and workmanship that Charles Brigham brought to the State House. For the researcher it was most gratifying to find that where original colors had been covered over, they were not too deeply buried and that wood finishes, although perhaps too heavy, in some areas, were nevertheless respectful of the quality of the oak and mahogany wood substrates.

Senate President's Office

Figure 85 shows this room as it looked in 1900. The need to look for original wall paint colors was clearly not necessary as the walls were covered with a fine wallpaper. The radiator grilles did have the bronze paint described earlier, with a later application of silver leaf.

Access to the ceiling would provide very interesting information about the original colors and possible gilding on the decorative

plaster work there.

The woodwork at present seems to have only two to three layers of varnish.

Chapter 3 indicates clearly the great extent to which this room was built as drawn.

Here, as in the Public Office of the Clerk of the Senate, the woodwork received an "acid wash" in the early 1970's, thus rendering analysis of original finishes impossible.

Access to the ceiling would provide useful information about the original paint and/or gilding treatments there.

The two doors which were added in 1914 when the wings were built out to east and west of the Bulfinch block replaced windows, and mirrored glass. It was reported that a State House carpenter made period replica doors for these locations in 1971.

The most important piece of metalwork in the President's suite is the fine wrought iron staircase to the second story rooms. There was no evidence of brass or bronze plating on the bronze paints. The present, handsome treatment is the upper of these two applications; since it passes over some spots of damage, it appears to be of some date later than that of construction. The lower layer of this same type looks as if it may be original. More study of these finishes would be worthwhile.

The two layers are practically identical. Each consists of a layer of silver-colored flake pigment overlain by a red-brown glaze.

The wall surface adjacent to the stained glass transom in this small hallway was originally painted a light woody brown and glazed. The decorative plaster cornice had, under a layer of the glazed woody brown paint, a light and deeper tan treatment, with the cyma of the deeper tan, fluting light tan, bead and reel, and acanthus of the light tan, and the topmost quarter-round a light terra cotta.

The stairs themselves are iron and only recently carpeted.

Office of the Clerk of the Senate

With its mahogany mantlepiece, carnelian marble fireplace, and ceiling with Adamesque plaster work including a frieze, this is a fine example of Brigham's best work. In Figure 91 much of the high quality can be seen. The play of colors is intriguing, as the wainscot (plaster) was originally a deep green, with the window frames also being painted the same green after a first

coat of warm brown. The chair rail with its composite mouldings appears to have been a warm brown with glaze, and the wall, with a coarse textured plaster and sealer, a light warm tan.

The metal grille under the window has the bronze paint on iron.

The woodwork, reportedly washed with "an acid bath in 1972 and miraculously lightened," did not have enough original finish to enable the researcher to make a determination of early stain or color.

Hall outside "Coolidge Room" (331)

The light warm tans of the Office of the Clerk of the Senate were present as original paint on this area, followed by warm olive greens and lighter yellows.

"Coolidge Room"

Access difficulties prohibited the researchers from examining the surface of the important wallcovering. It may have been overpainted or glazed at some time.

The wood finishes in this room have at most only one or two overvarnishes.

Senate Coat Room

Only the north wall has this room's original colors, which start with a light warm tan and go to green and terra cotta, much like the wall colors in the hall outside the "Coolidge Room."

Rooms 340, 334, 335, 337

While we do not have the extensive documentation on the original or early finishes of these rooms that is available on the suite of rooms around the President of the Senate, the rooms themselves do have well-detailed plasterwork and fine marble and mahogany finishes. Where painted walls existed originally, the color was a light neutral tan, followed by ivory. The window and door frames, of moulded plaster, seem to have been painted to look like a light oak. The baseboard was a deep tan.

In Room 340, the plaster work around the window was painted a deeper brown to match the darker woodwork. Both Rooms 340 and 337 have deep warm yellow ochre walls, with that color being repeated for 3 - 4 layers.

These rooms were among the few which had shades of blue paint on the walls, and then only in layers 5 - 7 up from substrate.

State Library

Study of the original paint colors and finishes in the Library proved most interesting. The article describing this grand room in the Boston Sunday Globe mentioned that the lower walls were pale green shaded into delicate yellow higher up but did not mention the rose-tans, terra cotta reds, pale stone greys and ivory colors that were found on the walls and decorative plaster trim of the upper gallery.

On the soffit of the large arch in the north end of the Library gallery, for example, the rosettes in the coffers are picked out in a creamy ivory (possibly glazed), while the surface behind the rosettes is the same blue color as the walls. The other moulded areas of the arch soffit are a deep rosy tan-ivory which also seems to have a glaze.

The metal balustrade around the gallery has a mahogany hand rail which has been further reddened by a stain, then varnished. The handrail supports seem to have been originally a polished bronze, while the top metal bar of the iron work below that has been painted black, then rich bright green, and finally the present tan. The central decorative motifs which are anthemia are (or seem to be) a gilded bronze, while the metal work around them is painted the same colors as the top bar described above. The seal of the Commonwealth was first painted a rich brown, then light gray, then the present blue (Figure 113).

The wall along the east side of the Gallery is a light warm ochre. In the stacks, the metal work seems to have had a deep terra cotta as its original color. In fact, most of the painted metal work in the Library is painted iron or steel. Some elements, however, are a brass or bronze, as has been mentioned in the original specifications and other documents quoted in the Chapter 3.

The most notable example is the pair of sliding doors at the entry to the Library (Figure 116). These certainly seem to be bronze, as described, and are in excellent condition. The newspaper description referred to above notes that these doors had "shinning panels," which indicated a high polish rather than patination as the original finish.

A description of 1894 (see chapter 3) mentions silvered soffits of the rear staircase outside the State Library (Figure 82). Indeed, at several points on the cast iron soffits, stringers, and newels (not the wrought iron rinceaus of the railings) we found silver leaf, or at least silver-colored leaf, underlying later plain and metal-flake paints. This leaf appears to have been colored over with a yellow varnish to give the impression of a yellow metal, such as gold or bronze. More study of the yellow

glaze would be worthwhile at the time that restoration of this shining finish is being considered.

Beneath the glazed silver leaf is a bright yellow ground layer, and below that one or two plain paint layers. Given the early date (1894) of the newspaper description of the silver, the underlying paints must have been primers or temporary coatings.

The main desk and the remaining few original steel bookshelves (near the main desk and in the Legislative Reference Room) have trimmings in brass or bronze, now painted over. These were originally burnished bronze and would have shown up handsomely against the metal cases, enamelled in olive green.

Chapter 3 quotes a description which includes mention of the colorful effects on the room of light coming through the stained glass, and further cites Lewis F. Perry as the painter of the decorated ceiling. It would be very informative to do a paint study of the ceiling to find the exact hues and values of the original painted decoration, which early black and white photos reveal to be varied. The windows described as "seven great stained glass windows that dissolve a reddish gray light" have unfortunately been lost but the "top lights of amber glass" remain to impart some of the original richness."

One area where paints were examined should be mentioned as having a color not found elsewhere. The wall adjacent to the large Palladian window which lights the Library staircase appears to have as its original color a medium deep Federal blue-green, which is followed by a light Federal grey. The columns and capitals, and architrave have a very thick layer of light Federal pearl gray as their original paint color, while the frieze and cornice of this entablature have a light rosy tan.

House of Representatives

The evidence found in earlier paint layers in the Gallery of the House tends to confirm the signs of painted borders in the large panels, as shown in Figure 97.

Around the back of the Gallery, on the plaster wall surface above the wood wainscot, the modern paint is not quite a match for the original border in width or location. The edge of ceiling ribs which could be reached had a lighter color than at present, and the coffers in the ceiling have four earlier colors, all greens. The columns seem to have had originally a very light pearly grey white paint, followed by ivory, yellow, and the present ivory. The capitals appear to have had a shellac tinted with raw umber, a treatment more commonly associated with the twentieth century. There seens to be no other finish beneath the present glossy varnish on the balustrade.

On the south wall of the Gallery, the paint colors under the present turquoise center rectangles start with a deep olive green, then have various light greens, roses, tans, even a grey, but nothing anywhere near the present turquoise. The present ochre border covers four to five layers of a much lighter ochre, and the light pink band lies over what apears to be an olive green, then light ochre, then deep rose. Under the cream wall color there is an assortment of light warm tans. Investigation was inconclusive as to the presence of any gold leaf in the design areas.

The pilasters had two layers of a warm lightly pink ivory with glaze. There are two metal items worthy of mention in the House of Representatives. The bases of the Representatives' desks, designed to serve also as heating registers, are of cast iron with a plating of either bronze or brass (the original specifications say bronze). The plating is worn and corroded to the point where re-plating is necessary to achieve the original handsome appearance.

Two large heating registers in the wood-panelled front wall are made of solid brass or bronze and may be gold-plated. Their original finish deserves closer examination prior to restoration.

Private Office of the Speaker of the House (354)

The sash in this room, as in a number of rooms on the west side of the Brigham extension is new, painted dark brown, double-glazed. The woodwork is mahogany with at least four coats of thick clear finishes. An oval panel in the door is new, replacing a window. The ceiling of this room, which can be seen in Figure 103, now has a ground which appears to be a dull slightly greenish ivory with an orange tinted shellac glaze to emphasize the shadows of the relief work. On the relief work is a gold paint, not gilding, and the two different blues and the ivory of the ground are painted up to the edge of the relief areas, hence, clearly a later overpainting.

House Reception Room (350)

The mahogany paneling in this room has been stripped and refinished, and the wood "frames" on the plaster walls are probably an added feature, as they are very simple in profile, and a darker wood. The plaster ceiling, on the other hand, is in excellent condition, with the cornice and cove most likely showing their original colors of dark green, umber, and gilt detail. Restoration of gilded highlights would complete the original appearance of the ceiling. Original wallcoverings of leather are now missing, but the north wall did have six paint layers, starting with a deep rosy tan.

House Coat Room (348)

The door into the adjacent Reception Room has been stripped and a dark uneven thick glazed finish of some sort has been applied. Under the present dark stain on the large mirror is a light gold varnish. Other wood was not tested.

Of greatest interest is the faux marbre paint treatment on original walls, baseboard, even metal cover of the duct chase. The marblizing seems to start with a pale grey white ground, then have grey and tan vening. The quarter round of the moulding around the windows is also marblized.

General Reading Room

The gold and ivory scheme recorded in chapter 3 was indeed found on the ornate pilasters on either side of the fireplace, with the relief in warm ivory and the ground having gold leaf.

The walls of the Lobby area outside these grand House rooms have a light grey paint on the plaster as their original color, and subsequent layers alternate between the light grey and a light ochre.

Committee on Rules (355)

Figure 128 shows this room as it looked in 1900. On the mahogany there is only a single layer of shellac, in good shape. On the plaster walls above the panels the original color was a light and bright seafoam green, followed by one of the rare early "Wedgewood" blues. The ceiling has a tan "antiquing" in the cornice and guilloche, with blues and yellow painted relief work. The rosettes are poorly splashed with gold paint.

Room 356

There is much piecing together of wainscot, baseboard, and chair-rail in this room, but its ceiling design does link it to Room 335, as does its fireplace. Where there is original baseboard it seems to have been grained, and the plaster wainscot with eleven or more paint layers starts with a warm rich rose. The hardware is all original.

Room 357

In this room all of the plaster door surrounds are painted to resemble mahogany, while the woodwork has been stripped and "lightened." The ceiling, now painted white, has such a lively design that further color research there would no doubt be rewarding. The walls had leather covering or wall paper originally, as evidenced by the fact that how they have only two

or three layers of ivory paint.

Fourth Floor

Figure 129, 132, and 133 show typical committee rooms on the fourth floor. The field notes from the time spent in testing and analysis call out specific paint colors and layer sequences in Rooms 427-429, 431, 433, 435, 436, 437, 438, 439, 443, 444, 445, 446, 448, 450, 452, 453, 455, and 456.

In general, all of these rooms retain their original skylights, now blocked up or covered in some way. It is ironic that light fixtures often hang from the frames on the periphery of the skylights. While there have been extensive areas of water leakage and plaster patching, enough original wall surface remains for the taking of paint samples, in areas where there was not wallpaper originally, or where wallpaper lasted only briefly, as evidenced by the many (fifteen to seventeen) paint layers. All of these rooms also have their fireplaces of oak, marble, often brass as well, and many have at least some of their original furnishings such as bookcases and "bull ring" desks and chairs or benches. The baseboards and door surrounds are of moulded plaster, and many window surrounds are also plaster. Except for the baseboard, which is often painted a deep brown, the rest of this plaster work is painted to match the wall or other trim color, not painted to resemble wood. Unfortunately, this plaster work has been subject to chipping and abrasion, and in some cases is poorly patched. The trim around the skylights is also of plaster, and seems to have the same white calcimine paint as the ceilings. Most of the woodwork has been filled, to smooth out the surface for finishing, with a tinted silex paste, and given a light tinted shellac, which now is covered by a thick modern finish which has darkened. The buff Roman brick of most of the fireplaces has accumulated dirts, as has the tile of the hearths. The hall colors are ochres, tans, greens of several sorts from bluish to yellowish, and light terra cotta red/orange.

The fireplace tile in Room 452, the former Ladies' Reception Room, deserves special mention as it is small and has a deep high chroma blue glaze. The hearth tile is also this intense blue, and has moulded tiles around the border. The wall color in this room was originally a light pink-ivory, with a glaze.

Wings

As noted in chapter 3, the construction drawings for the wings, by the architects Andrews, Chapman, and Sturgis, exist in the State Library Special Collections. These drawings clearly show that the interiors of the wings were always very plain. Even so, the wings had originally quite a few features of high quality, on both the interior and exterior.

More recent additions (such as the many interior partitions of various dates) are nearly all utilitarian. Rather than chronicle any of these later items, this report will list original elements of quality and propose measures for their restoration.

Exterior

Masonry:

The high quality of the exterior masonry of the wings is self-evident. The section of this report on exterior masonry conditions will note what restoration work is required.

Copper-Covered Sashes:

The sashes of the wings, of wood covered in copper or a copper alloy, are a high-quality item of the period. Often referred to as "kalamein," this type of construction was considered moderately fire resistant. In exterior features, such as sashes, it is subject to water penetration through any defects and rotting of the wood. The foreman of the carpentry shop estimates that 20% of the sashes are in good condition, 60% in fair condition, and 20% in poor condition. Typical problems are rotting of the joints of bottom rails, and failure of the deteriorated wood inside the copper-covered muntins to hold screws for the glass-retaining pieces. The carpentry shop answers many requests for repairs to ill-functioning windows on the wings.

When the window air conditioners are removed, a systematic program of repairs to the window tracks and sashes is needed. Some sashes may be more economical to replace than to repair. A variety of materials could be considered for new sashes. Most of the sashes are essentially sound and can be repaired using a combination of conventional carpentry, conventional sheet metal work, and epoxy resin treatment of deteriorated wood. The sashes fit the design of the wings in style and scale and should be retained, or, if too deteriorated, copied accurately in a suitable material.

The original specifications (see Chapter 3) state, concerning the sashes, "Exterior surfaces to be prepared for oil paints." Very

early photographs of the wings show a light color on the sashes, more or less the value of the surrounding stone, and slightly later photographs indicate a dark color. There are very few paint layers on the sashes.

Iron Balcony Rails:

Six short lengths of ornamental wrought iron railings form an integral part of the decorative treatment of the southern ends of the two wings, at third floor level. These railings have been rusting and have been repainted less than methodically in the past. They are due for a full glass-bead blasting down to white metal and for the application of a paint system that will last. The paint system should include an industrial grade rust-inhibitive primer that will protect either through the galvanic mechanism or the passivation mechanism. Bead blasting and repainting should be done with the railings removed to a shop. Removal will be necessary anyway on account of the other problem of the railings: complete rusting out of over half their "feet" that were originally set into the marble. This rusting has occurred where puddles of rain water stand on the stone shelves beneath the rails. This improper drainage of the masonry should be corrected before the rails are re-set on new feet.

The small wrought iron handrails at the basement level entry on the east end of the East wing are also in a state of disrepair.

Bronze Doors (East Wing):

Though not original, the bronze doors on the north and south sides of the East wing are of good quality. the drawings for them exist under the contract heading G 64-2B, for 1964. The doors are specified on the drawings to be made of hollow bronze, with a "satin finish, statuary color." Thus the newly restored brown patina on them is approximately correct. The bronze doors are an improvement over the original wooden doors, which were similar to those on the West wing.

As for the various wooden exterior doors on the wings, all are in approximately the style of the originals, but the ages vary. None survive that match the description in the original specifications: "to be covered with bronze similar in construction to windows." The doors at the basement level entry at the east end of the East wing look as if they could be original, but are not copper-clad. Those at the west end of the West wing are clearly replacements, more or less in kind. The casing of this western doorway also looks new. There is some doubt about the age of doors at the north and south sides of the West wing, though their casings look original. The arched kalamein sash over the northern set of doors must be original.

Exterior Lighting Fixtures:

A paucity of old close-up photographs of the wings makes it difficult to date the exterior lighting fixtures, especially those in the "pit" outside Gardner Auditorium. Very distant photographs in the "Burrill File" in the State Library Special Collections, from the 1920's, show standing fixtures at the southern entries on both wings. The present undistinguished sconces now at these locations are not original. A drawing for the four handsome original standing fixtures for these locations has been found in Room 42b, and is labeled "State House Architects, Detail of wrought iron lanterns, March 1, 1917." These do look like those seen in distant photos, though there may have been changes in the design as carried out. The design was handsome. At the southern entry to the East wing, holes in the granite paving show where the two older fixtures stood, tight against the wall. No such holes exist at the West Wing, as the paving here dates from the much later construction of the Archives.

At the north entries of both wings, patterns of holes show where earlier lighting fixtures occupied the positions of the present sconces. Designs for these handsome original fixtures are included on the same drawing of 1917.

The present sconces outside Gardner Auditorium are of better quality and look as if they might be original.

Interior

Halls and Stairs:

The halls and stairs, can be restored, redecorated, and lighted so as to be attractive. The original drawings show that most of the good interior detailing was reserved for the halls and stairs (with some left over for Gardner Auditorium and the Governor's rooms in the West Wing). The good features of the halls and stairs largely survive and should be restored and featured in any renovation program.

- Staircases. The cast-iron stair railings of the wings are of high decorative and constructional quality. In the original drawings, no plating of the iron is indicated, and, indeed, our inspection in several places has revealed only bare iron beneath the paint. The drawings note ball finials of Belgian black marble on all the newels. Some of these marble spheres survive; others are missing or have been replaced by overly-striated replicas in plastic, which, we are told by a State House employee, are candlepin bowling balls. Some of the marble finials have been covered by paints or opaque waxy coatings. We recommend re-installation of black marble ball finials as needed.

The mahogany hand rails of the staircases, specially noted in the drawings, are nicked and have been obscured through the darkening of their finishes and/or the application of later finishes. They should be stripped and re-finished.

- Mail Chutes. There are handsome mail chutes and letter boxes in the staircases of both wings, badly repainted in brass-flake paint. The mail chutes and letter boxes around the whole State House could be restored to a much better appearance. Some parts are solid bronze or brass, some are plated, and some enamelled. A combination of refinishing techniques can make these surfaces look good again.

- Marble wainscoting, architraves, and flooring. The hallways have retained their marble wainscoting, door architraves, and flooring. In the main entry vestibule in the East Wing the marble extends to the ceiling, in an interesting pattern of very shallow rustication. All this marble needs is a good cleaning.

- Moulded cornices and ceiling panels. The original moulded cornices can still be seen in the first, second, and third floor hallways of the East Wing. In the West Wing, new hung ceilings at these floor levels hide whatever may remain of the cornices. The original treatment, with better paint colors and lighting, can be made to look much better than the hung ceiling.

A plaster ceiling survives in the main lobby in the East Wing. It should be maintained.

- Steel doors. Original steel doors of simple classical design, many having frosted glass upper panels, survive in about half of the hallways. In other hallways, new classical doors in oak or mahogany have been substituted. Both types -- except where confusingly mixed in one hallway -- are generally in keeping with the simple classical revival style of the architecture. We recommend that the remaining original doors be retained, as they do add to what could become a pleasant turn-of-the-century atmosphere in at least the hallways of the wings.

The absolutely plain metal doors of the mens' and ladies' rooms, all replacements, look terrible. New doors should be installed to match adjacent better doors.

- Elevator Doors. The original drawings show fine wrought iron openwork elevator doors with some parts noted as bronze plated. The present, later, elevator doors are plain. The original type of doors would, presumably, not be up to code and would be extremely costly to replicate.

- Colors and lighting suggested. The refurbishments, noted above, of original good features would go part way toward

improving the appearance of the halls and stairs. Well-chosen paint colors and lighting fixtures would complete an agreeable 1917 picture.

As for paint colors, we suggest that a look be had at the original colors to see if they would have the desired effect. If not, since the hallways do not necessarily merit academic restoration, colors used in finer classical revival interiors could be copied, and perhaps some very simple painted designs employed. For example, the simple painted panels used by Charles McKim for some minor hallways in the Boston Public Library (as to the Microtext Room) might be adapted to fit in between the door casings of some of the bleaker hallways of the wings. We suggest, in other words, that the paint colors and schemes build on what classical revival ingredients the wings already have. In that the hallways have a simplicity verging toward moderne, the colors used could tend this way as well.

A similar approach -- period decoration -- could be used in the choice of new lighting fixtures. There are many examples of simple early-twentieth-century neoclassical-to-moderne wall and ceiling fixtures, some in glided bronze, that could be used as models for specially cast replicas. Various ready-made reproductions, in appropriate styles, are available, through such firms as Marle and Guerin. Lighting fixtures of neoclassical rather than colonial-style would be appropriate to the halls and stairs.

Governor's Rooms

The original plans for the wings show "special finishes" for the two Governor's rooms on the third floor of the West wing immediately adjacent to the Bulfinch Building (now rooms 379 and 383). These rooms are now minor offices and have a few added partitions. The existing details in wood and plaster, while not actually conforming to the Federal revival designs shown in the drawings, are in the same approximate style. Each of the two rooms has a sort of Regency style marble mantel of real quality dating to around the 1820's: these were taken in 1916 from a house at 28 Beacon Street (see Chapter 3).

While not architecturally important, these rooms are more amenable to being made into attractive spaces than other offices in the wings.

Gardner Auditorium

The original drawings for the wings show a somewhat more decorative "hearing room" than the present Garder Auditorium. The railings for balconies and walkways, as shown in the drawings, are of the same ornamental type as in the staircases of the wings, whereas the railings actually present (except on the way from the outer lobby to the tunnel) are made of plain panels. The original design of the wall behind the rostrum had been a little more complex than the wall actually is. We have not attempted to sort out each variation from the drawings as to whether it is an original departure from the first design or a later change. A program of extensive alteration in the late 1960's is recorded in drawings by Harry Gulesian and Associates, Architects, stored under the contract numbers G-65-5 and G-66-5. This work included new seating, a new podium, the modern-style doors and other items in the corridor to the north of the auditorium, new ceiling panels, new HVAC systems, and other work.

The early drawings make it clear that Gardner Auditorium was never architecturally significant. Funds available for academic restoration in the State House would be better used in other areas. However, the lobby to the south of the auditorium, behind the exterior doors, would benefit greatly from cleaning of the original marble, and from a general renovation. A particular problem with this entry to the auditorium is that outside the doors is a secluded stairwell, hidden from view, that is used by vagrants. Gates at the tops of the outdoor steps would alleviate this problem.

Library Special Collections Stacks

The large area of stacks in the basement of the West wing, used for the State Library Special Collections, cannot be seen as suitable for important library materials. The temperature and humidity in this area fluctuate wildly, the windows do not fit or operate properly, and there have been recurring problems of leaks from roof drains in the walls. Some broken panels of glass in the glass-floor system of the stacks threaten to break under a person's load and should be replaced.

Archives

The display, office, and storage spaces comprising the Archives were constructed in 1958-60. The high-quality of the masonry and metalwork of the display area is self-evident and makes the space worthy of some dignified new use once the archives has moved.

Staff members of both the Archives and the State Library (which uses one of the storage spaces) have complained strongly about the complete unreliability of the environmental control in the storage space, especially the problem of widely fluctuating relative humidity, which is well know to cause rapid deterioration of library materials. Heating pipes that pass through storage areas pose a risk of sudden calamity.

Heating and air conditioning engineers are generally much more experienced in the control of temperature than of relative humidity. There is widespread dissatisfaction with environmental control systems in museums and libraries. If proper storage of library materials is to be possible in the State House, a new environmental control system is needed, and the choice of an engineer and installer should be made only after an intensive review of prior performance.

4.7 Structural Investigation

This section of the report describes the structural investigation methods, findings, descriptions of the various portions of the structure, and certain areas of special importance or concern.

4.7.1 Purpose and Methodology

The purpose of the structural investigation was to define the general nature and assess the condition of each building or section of the State House. This was accomplished by a general visual observation tour, follow-up inspections of certain areas, discussions with other consultants involved in this report, and a study of certain existing drawings, as described below. Detailed structural investigation, calculation analysis, removal of materials and testing were beyond the scope of this investigation.

General Tour and Inspections

After studying the overall chronology of the State House construction, since its late eighteenth century origin and through several major additions in the following two centuries, a walk-through inspection tour was made of all buildings at all floor levels and the roofs. This inspection included at least a brief look into most spaces and rooms (except those available only by appointment), and areas above major ceilings and skylights. The general tour was supplemented later with several more-detailed inspections of certain areas.

As in most finished and occupied buildings, the structural elements are almost all hidden from view; exceptions to this are the exterior masonry walls and roof structure above certain ceilings and skylights. Some of these information gaps were filled in by research into the drawings (see next paragraph). Certain areas in the general tour seen to have questionable conditions or obvious problems were flagged for further investigation and description (see below).

Existing Drawings

In order to gain additional structural information, many drawings kept in the State Library archives and elsewhere in the State House were studied. Using an existing overall archive index, a structural sub-index was created (see Team File) listing all drawings that appeared to be structural or related. Using some of these drawings, much information was obtained about hidden portions of the structure, although an exhaustive search was not made; there is, of course, no guarantee that those portions were built in accordance with the drawings. Examples of the drawings found and studied are linen-and-ink originals of: the architectural drawings for the Brigham extension; the architectural and

structural drawings for the East and West wings; and the structural steel shop drawings for the late nineteenth century re-framing of the Bulfinch building. Unfortunately, there is almost no structural information for the original Bulfinch building framing.

Inspection of Foundation Walls

In order to determine whether there was any cracking or other evidence of foundation settlement, a visual inspection of the lower portion of the entire exterior wall perimeter of the State House was conducted. There are a few minor cracks, but no evidence of significant settlement was found. This is not surprising since the walls appear to be well built and their foundations are believed to bear on good soil - preconsolidated glacial till (Beacon Hill is a glacial drumlin, the top of which was cut down somewhat as a source of material for the filling of the Back Bay area of Boston prior to construction of the State House). The only primary or structural problems noted are quite minor and localized, and are described further below. However, there are numerous secondary problems with the exterior masonry, which are described in section 4.3 of this report (see Exterior Conditions).

Miscellaneous

It should be noted that separate studies on masonry and roofing at the State House have been completed by other consultants (previously or as part of this report) and they should be reviewed for further details and conditions in those areas.

It should also be noted that all of the State House structures/-additions (like many other old buildings) pre-date seismic design code requirements, and consequently should be expected to suffer damage in the event of a significant earthquake.

4.7.2 Description of Findings

General Observations

Generally speaking, for such an old public building - and a large complex one, too, with all its changes over the decades and additions covering almost two city blocks - the State House is in quite good structural condition. The building structures have been for the most part well maintained. The drawing records have also been well kept, at least until recently, except for the Bulfinch building drawings, which is most unfortunate.

There are no major structural or safety problems, with the exception of some relatively minor ones and one major one (the abandoned underground coal storage "pocket" supporting portions

of Mount Vernon Street and the east parking lot), which are described further below.

General Descriptions of Structures

Based on actual inspection and on studies of certain extant drawings, as stated above, it is possible structurally to describe in a general way the foundations, substructure, superstrucutre framing, lateral load/stabliity systems, and any special structural features for each building and portion of the whole State House structure, as follows.

Bulfinch Building

This original 1798 structure consists of a basement plus 4 and 5 stories above ground, plus the main dome.

Its foundations, which pre-date the rediscovery of concrete, are granite block and "rubble laid dry on soil." The foundations were at least partially under-pinned later - adjacent to the added East and West wings and under the main front, also, according to some of the old drawings.

The superstructure is made up of several different elements as follows.

a. Exterior materials are: gray granite lower and red brick upper walls with white marble and wood trim, plus the gold-finished dome, of course; the original main front portico columns were replaced later in cast-iron with aluminum capitals.

b. Primary framing materials are: exterior bearing walls of granite and brick; interior bearing walls mostly of brick; some free-standing columns (e.g., in Doric Hall), but mostly masonry piers and walls, and some added steel columns*; and interior floor and roof framing originally of wood, but now primarily of added structural steel*, and some brick arch floor construction.

c. Lateral stability system consists of masonry interior and exterior walls in both directions (N-S and E-W) acting as shear walls; the dome is stabilized by its own shape and by added steel truss-work.*

d. Special features: the original dome framing is not visible because of later plaster fire-proofing, but is reported to be curved radial wood ribs (possibly a very early use of

*Note: The Bulfinch building was completely re-framed with added structural steel in the 1890's.

laminated wood, according to Morgan Phillips of the S.P.N.E.A.), and now completely re-supported by the added steel truss-work; other special areas are the Governor's office on the Senate) on the east end, the Senate chamber (former House of Representatives) as the main large-span space under the dome, and Doric Hall under the Senate.

Early North Additions

The following small additions to the back (north side) of the Bulfinch building were demolished in 1895 and so are not described here:

- Parris' "Washington Temple" addition of 1826;
- Rogers' addition of 1831; and
- Bryant's addition of 1856 out to Mt. Vernon Street

Brigham Extension

This major addition of mid-1890's vintage, often referred to as "the annex", extends a full block to the north of the Bulfinch building and consists of 6 and 7 stories, including partial sub-basement, basement, first through fifth floors, and the roof.

It is interesting to note that this building was an early user of two newly-available construction materials: concrete and structural steel.

The foundations are stepped (corbelled) granite blocks on cast-in-place concrete continouous strip footings on soil.

The superstructure elements are as follows.

a. Exterior materials are: gray granite lower and yellow brick upper walls wth limestone and marble trim.

b. Primary framing materials are: exterior bearing walls of granite and brick; interior bearing walls primarily of brick; a few free-standing columns of structural steel z-bars or channels/plates inside fluted marble or stone trim; beams, girders and trusses of structural steel; floor system composed of terra-cotta blocks between steel beams, typically (see sub-section 4.6.3 below re: question of wood floor construction in some areas); steel beams and trusswork over large spaces; small shallow brick arches between steel beams over Mount Vernon Street passage; roof "decking" material not known.

c. Lateral stability system consists of the exterior and interior masonry walls acting as shear walls in both directions.

d. Special features: large-span and/or open spaces, such as the House of Representatives (which has structural steel tension and compression rings and radial beams to support the large domed ceiling above), Memorial Hall of Flags, State Library, and the Grand Staircase Hall; an interior light-well court; and an automobile passageway (Mount Vernon Street).

East and West Wings

Attached to the east and west sides of the Bulfinch building are two "wing" additions of 1917, each consisting of 6 and 7 stories, including partial sub-basement and basement, first through fourth floors, a partial set-back fifth floor, and the roof.

Foundations of these wings are cast-in-place concrete spread footings and foundation walls.

The superstructure consists of the following elements.

a. Exterior materials are: gray granite lower walls; and white marble upper walls.

b. Primary framing materials are: exterior bearing walls of brick, granite and marble; no interior bearing walls; columns of structural steel (with cast-iron bases) in both walls of the central double-loaded corridor; steel floor beams and girders; steel trusses at the roof only; floor system of cast-in-place concrete topping (granolithic finish on cinder/concrete fill) on level "flat arch" keystone-shaped hollow terra-cotta blocks between steel beams; roof deck system of "book tiles" in cement mortar laid on steel tees between trusses.

c. Lateral stability system consists of the exterior masonry walls acting as shear walls in both directions.

d. Special features: the Gardner Auditorium below the east wing is a column-free space with heavy steel girders spanning full width of the building at the first floor to carry the corridor columns above.

Underground State Archives

This 1960 structure consists of 3 stories, all below ground, including a sub-sub-basement, a sub-basement, and a basement level, the top of which supports a terrace in front of the south entrance to the west wing.

The foundation is a cast-in-place concrete two-way mat, 24" thick except locally thickened under interior columns.

The sub-structure (there is no superstructure above ground) is made up of the following elements.

a. Exterior material is cast-in-place reinforced concrete (buried, not exposed).

b. Primary framing material is cast-in-place reinforced concrete: 24" thick perimeter and interior walls; free-standing interior columns; beams; and two-way slabs, 9" thick at sub-basement level, 24" thick at basement level, and 10" thick at "roof" terrace level.

c. Lateral stability system consists of the concrete walls all around.

d. Special feature: the lowest two levels (vaults) are designed to be bomb-resistant.

Underground Coal Storage "Pocket"

This structure is a single large space 2 stories high and completely below ground. It has been virtually abandoned and apparently neglected, but continues to perform an important function in that its "roof" supports portions of Mount Vernon Street and the east parking lot and plaza.

Note: This structure is the one area of the State House which is in need of immediate structural investigation in more detail due to serious deterioration of portions of the structure (see further details below), and which might require temporary repairs and/or shoring to continue providing safe support for the street and parking lot above, even though it may eventually be demolished.

The foundations of this structure are not known, except for the stone perimeter walls, but are likely to be stone and/or concrete footings on soil like the rest of the State House.

The sub-structure (there is no superstructure above ground) is made up of the following elements.

a. Exterior material of perimeter walls (buried, not exposed) is large stone blocks.

b. Primary framing materials are: the stone perimeter foundation walls; no interior walls; free-standing interior columns, some of which are brick masonry piers and some of which are metal (cast-iron?); shallow brick arches between metal (steel?) beams make up the "roof" framing overhead.

c. Lateral stability system consists of the perimeter stone walls all around.

d. Special features: is an abandoned tall storage bunker for coal formerly used in heating the building; has connecting passageway to basement of Brigham extension with narrow-gauge railway tracks in floor, and a connecting tunnel to one of the other portions of the State House.

e. Deteriorated conditions: columns especially are in bad condition; masonry piers crumbling badly at their bases, and metal columns also corroding badly at their bases, due to wet conditions at the floor level; there is bad leakage of water and de-icing salts from above; there are stalactites, encrusted salt, water dripping from above and pooled on the floor, and numerous cockroaches up to about 1-1/2" long(!); the "roof" framing (which supports the street, parking lot, and plaza area at ground level above, east of the Brigham extension) was not easily accessible to inspection because of its height and the lack of good lighting, but is also believed to be in a very questionable condition due to cracks and the leaky, corrosive conditions. Connecting tunnel has water damaged walls and ceiling.

4.7.3 Areas of Special Importance and/or Problems

During the general inspection tour, certain areas were designated as warranting a second more detailed inspection, simply because of their importance in the State House structure, or because real or apparent problems were noted. These areas are listed and described in the following paragraphs.

Note: Items preceded by a double asterisk (**) require further in-depth investigation and repair (beyond the scope of this study).

Bulfinch Building

**a. Main dome: A special inspection was made due to the dome's importance. No structural problems were noted and the conditions of the added steel trusswork appeared satisfactory. No further action is deemed necessary except that a small roof leak in or near the cupola needs repair.

**b. Main front stairway and portico floor: The stairway masonry and jointing all the way out to Beacon Street are in poor condition; there has been extensive water and frost damage. There has also been a good deal of leaking and water damage in the basement rooms below the portico floor, including room #189 where many of the existing drawings are stored. These conditions are discussed in more detail in

section 4.3 of this report (see Exterior Conditions). Fairly extensive masonry and other repairs to the stairway and portico floor are required, then repair of the interior water damage. There are minor (insignificant) cracks at the far west arch of the south front facade.

**c. West facade: There are some previously-repaired cracks and masonry keystone misalignments over two of the lowest window openings. These are probably due to minor old foundation settlements, and do not appear to be a continuing problem; perhaps this was one of the reasons that some foundation wall underpinning was done. At least some repointing of the masonry is required. This item, too, is discussed in more detail in Exterior Conditions (section 4.3 of this report).

d. Governor's Office: At the junctures of both interior walls with the exterior walls in the southwest corner of the building, woodwork misalignments of the chair rail and the ceiling molding were noted which appear to be indicative of old downward structural movement of the interior relative to the exterior walls. There is no evidence of any continuing settlement, and so further action is not considered necessary.

**e. Senate Reception Room ceiling: Significant twists, bowing and sagging are evident in both lines of wood beams over the free-standing columns. A further inspection above the ceiling revealed major steel beams added just above in the 1890's re-framing of the building. The misalignments are therefore now considered to be only cosmetic in nature and, unless further twisting, bowing or sagging occurs which would tend to manifest itself by significant cracking of the ceiling and/or opening of the wood trim joints, further action is not necessary. Some minor water damage was noted, however, in the ceiling and over the gallery, and it and the source need to be repaired.

Brigham Extension

**a. Roof/skylight leaks and water damage: Considerable water damage has occurred at the top floor ceilings due to roofing and skylight glazing and flashing leaks in several different areas, but especially over the library stacks between the light well and the State Library. Although the steel framing strangely does not seem to be rusted in the one visible area checked, these leaks have damaged other materials and have even dripped down and damaged another story below. Water damage has also occurred at the shaft-way at the juncture with the Bulfinch building. The cause(s) of these leaks must be found and fixed first, and

then the damage repaired.

**b. West retaining wall: The exterior retaining wall along Hancock Street (opposite the curved exterior wall of the House of Representatives) is excessively tilted towards the State House (low) side; the sidewalk, fence and stone trim are also out of line. The cause, and whether movement is continuing, are unknown; it might be from excessive street or vehicle loading, or unsatisfactory foundation or soil conditions, or some other cause. This problem needs further investigation as to cause and possible repair; as a minimum, further movement of the wall should be monitored by periodic measurements taken from several appropriate points along the top of the wall over to fixed reference points opposite on the State House.

**c. Terrazzo floor cracking: In several places in the building, some cracking of the terrazzo floor finishes in corridors was noted. The cause of these is probably not structural (possibly shrinkage), but is unknown and should be further checked.

**d. Wood floor construction: Though not checked or seen, it has been reported by State House (D.C.P.O.) personnel that in the House Majority Leader's office at some radiator repair areas at the outside wall, and other areas, wood floor construction has been found with piping and electrical conduits apparently freely routed and re-routed through it under the floor. This was unexpected, and calls into question the floor framing description given earlier in this section of the report, which was based primarily on study of the original architectural drawings. One possible explanation is that the wood floor construction is a non-structural sub-floor resting on the basic steel beam and terra-cotta block floor structure, possibly within the depth of an originally-intended topping or granolithic finish which may never have been built or subsequently removed. But the true explanation is not certain and this should be further investigated.

East and West Wings

**a. Wall leaks and water damage: Water damage has occurred at several places at windows and ceilings of the Beacon Street (south) end of the West wing, especially at 2nd and 3rd floor ceilings. There is also some water damage at the upper wall of the east stairwell in the East wing. As in the Brigham extension, the cause(s) of these wall and/or roof leaks obviously must be found and fixed first, and then the damage repaired.

Underground State Archives

**a. Water damage and flooding: Minor water damage was noted in one spot, evidently related to a leak from the terrace level above, but more importantly, it has been reported that elevator pit flooding in the lowest vault level has occassionally been a problem. Especially since important documents are kept in this area, the cause and a solution to the problem should be found. Drainage below should be checked out or provided, or at least an automatic sump pump regularly checked and maintained, and operating with back-up electric power available automatically in the event of anything longer than a momentary power outage.

Underground Coal Storage "Pocket"
(supporting parts of Mount Vernon Street and east parking lot)

**a. Water damage and corrosion: As previously noted and re-stated here, this area of the State House is the one of greatest structural concern due to serious deterioration of interior masonry piers, metal columns, and probably the "roof" framing. There is considerable salty water damage and corrosion. Immediate further investigation is necessary, and shoring and/or repair may be required to continue providing safe support for Mount Vernon Street and the east parking lot overhead at ground level. See further details under General Descriptions of Structures earlier in this report.

Miscellaneous

Minor structural damage has been caused in many localized spots by installation of added mechanical/electrical work (ducts, equipment supports, piping, conduit, etc.) There has been rather indiscriminate disturbance of existing structure and cutting of holes in masonry walls, especially in the ceiling/attic spaces of the Bulfinch building. This kind of damage should be eliminated or controlled more carefully in future work.

4.7.4 Evaluations and Recommendations

Several of the areas inspected were evaluated and found to need further investigation and/or repair. In each case so requiring, the conditions, details and recommended further action are described in the appropriate place in the previous two sub-sections of this structural investigation report, and so are not repeated here. In particular, refer to the items in the previous sub-section (4.6.3) which are preceded by a double-asterisk (**) indicating that futher work is required.

It is assumed that this report will be furnished to the

architects, engineers or other consultants doing present and future work at the State House and/or that D.C.P.O. personnel will coordinate with the appropriate parties the information and recommendations presented herein.

Chapter 5
Evaluation of Significance

5.1 Methodology and Purpose

Evaluation of the relative significance of the spaces and features which make up the Massachusetts State House was based upon the preceeding phases of documentary research, observation, and physical testing and analysis. Thus, the rather fine-tuned judgements represented by this phase of the Historic Structure Report were made within the context of a comprehensive understanding of the building's history and condition. Future work on the building should be done with a full knowledge of the relative significance of the spaces or features to be impacted, and consistent standards of work should be applied to spaces and features of comparable value.

This chapter explains how evaluation was undertaken and summarizes the results in a Room Evaluation Chart and a Feature Evaluation Chart. The first chart covers all spaces in floors one through four in the Bulfinch building and in the Brigham extension, as well as the basement corridors of the Brigham extension and all corridors and stairwells of the East and West wings. The second chart identifies original and later historic features in the Bulfinch building. Unlike the Brigham extension, the Bulfinch building represents several generations of renovations. Thus, the chart distinguishes between original late eighteenth century material, mid-nineteenth century Washburn material, late nineteenth century Cummings/Everett material, and 1960's replacement material. The chart addresses the exterior, since the interior features are covered in the Room Evaluation Chart.

Several criteria were consistently applied in developing the Room Evaluation Chart, including:

1. Functional or symbolic significance

2. Quality of materials or artistry of design

3. Age of the space or its major components.

The first was the functional or symbolic role assigned to the space during the building's history. Thus, spaces of unique or ceremonial significance, as well as those related to the highest levels of political power, were assigned a higher ranking than spaces of more common usage. Second was quality of materials or artistry of design. This category obviously took into account the rarity or expense of finish materials, as well as the level of craftmanship displayed. In general, a direct correlation was found between these first two factors, with spaces of greatest functional and ceremonial significance also being those which evidence the highest quality of materials and design. The final factor was the age of the space or the majority of its components, with the oldest generally being accorded the highest

level of significance. Age was the primary factor employed in developing the Significant Feature Chart.

Having established the criteria for evaluation, significance was then ranked on four levels: primary, secondary, contributing and low. Spaces and features of primary significance are those which ranked highest in the categories of function, quality and age. They have always been imbued with a high level of functional importance, were fashioned of the finest materials of the day and represent an exceptional level of craftsmanship or artistic expression. Secondary significance was assigned to spaces of somewhat lesser functional importance, and although their materials are often identical to those of spaces of primary significance, the materials are used more sparingly and the design is generally less elaborate in execution. Spaces and features of contributing significance serve a support function within the building and are generally not unique. Their materials and execution of design are also of somewhat lesser quality, but represent high durability and construction standards. A low level of significance was assigned to spaces lacking any appreciable historic arcitectural detail.

In addition to establishing criteria for evaluation and assigning levels of significance, the Room Evaluation Chart, which is organized by present room number, identifies the original use of the space and comments on historic features and modern intrusions. It also recommends a specific type of preservation treatment based on level of significance. The treatments are discussed in Preservation Goals, Chapter One. Primary spaces, especially those accessible to the public, are recommended for full restoration as soon as possible, including paint colors, finishes, wall coverings, furnishings, and light fixtures. Secondary spaces are recommended for restoration as maintenance and renovation needs arise; in the meantime, all historic architectural features should be preserved in situ. Contributing spaces should be preserved with no more loss of historic architectural fabric and are recommended for restoration only within the constraints of space and programmatic needs. Spaces assigned a low rating or not ranked at all generally have little, if any, significant architectural detail; while these details should be retained if possible the use and treatment of these spaces is flexible.

5.2 Application of Criteria to Building

Bulfinch Building

Primary Significance

The Bulfinch building, which today represents a composite of several construction and alterations periods, was the most difficult to evaluate. Spaces found to be of primary significance are those of high functional importance which retain large amounts of Bulfinch material or which accurately restore a Bulfinch appearance. The current Governor's Office (former Council Chamber) and Senate Reception Room (former Senate Chamber) retain the most of their Bulfinch design, although the Reception Room skillfully interweaves some Washburn and Cummings/Everett material. The present Senate Chamber (former House Chamber) is more problematic since large amounts of Washburn material, including rustication of the lower wall surfaces and the north and south galleries, have been introduced. The picture is further clouded by the fact that the domed ceiling cannot firmly be attributed to Bulfinch, due to discrepancies in bills for materials as described in the history section. The ceiling should be analyzed and tested in the future. Nevertheless, the high functional significance of the Senate, as well as the quality and harmony of the Washburn alterations yield a composite evaluation of primary significance. Doric Hall, the remaining space of high functional significance, also presented a problem, since it had been heavily remodeled by Washburn, and then restored by Cummings & Everett. Little original or early material remains, but some areas of wood trim can be attributed to Bulfinch. Nevertheless, due to the significance of Doric Hall as a grand foyer and meeting place, and because it today resembles closely the Bulfinch appearance, it is of primary significance.

Exterior features judged to be of primary significance are those which date to the original late eighteenth century construction period. These are listed in the Feature Evaluation Chart. These features, several of which represented innovations for their period, should be scrupulously preserved employing the most advance conservation methods available.

Secondary Significance

A level of secondary significance was assigned to spaces of moderate functional importance, whose appearance and finish materials date primarily to the Cummings/Everett restoration. These include the main corridors of the second and third stories, the outer flanking rooms of the second story (former offices of the Lt. Governor and Attorney General), and the present Council Chamber and Inner Lobby to the Governor's Suite on the third story.

Exterior features judged to be of secondary significance are those which date to the mid-nineteenth century Washburn remodeling or to the late-nineteenth century Cumming/Everett restoration.

Contributing and Low Significance

Spaces found to merit a ranking of contributing significance date largely to the late-nineteenth century, but are exceptionally plain in their finish materials. They include the fourth floor offices above the Governor's Suite as well as the marble finished first floor corridors and some first floor rooms. Several first floor rooms with no historic finishes were assigned a low level of significance.

Exterior features of contributing significance are those which date to the 1960's. While their materials are very recent and therefore have little historic importance in and of themselves, they do accurately reproduce the elements they replaced and are therefore important in maintaining the historic appearance of the building.

Brigham Extension

The Brigham extension has not undergone a planned systematic renovation, which might have left a later layer of significant materials. As such it was somewhat easier to evaluate than the Bulfinch building. Its numerous random changes (occurring primarily in the last twenty to thirty years), have all served to detract from the high quality of its original appearance. Partitions and dropped ceilings have served to cramp the original quality of spaciousness in many areas, while leaving characteristic elements, such as columns and decorative plaster ceilings fully or partially obscured. Uncomplementary paint colors and removal of original lighting fixtures have further detracted from the extension's former sumptuous appearance.

Primary Significance

Primary significance was related most strongly to issues of function and quality without the complex questions of age and attribution which surround the Bulfinch building. All spaces assigned this level of significance are found on the second and third stories, as they were in the Bulfinch building. At the second floor level, the most significant spaces are ceremonial ones. Forming the core of the extension, they continue the public processional function established by Doric Hall, while also providing important vertical links to the third floor where the seats of political power are located. Consisting, from south to north, of a vestibule, the Senate (or Nurses') Stairhall, Memorial Hall (or Hall of Flags) and the Main (or Representatives') Stairhall, all are still richly finished with a wide variety of marbles, numerous stone or bronze statues, and

various historical or allegorical paintings. At the third floor, spaces of primary significance are related to the highest levels of political power and include the Representatives' Chamber and adjacent suite of private members' gathering rooms, as well as the office suites devoted to the Senate President and the House Speaker. The State Library was also evaluated as a space of primary significance, due to its unique public function, and the exceptional quality of its original finishes. Fortunately, these spaces have not been seriously altered, and will thus present the fewest problems for restoration.

Secondary Significance

A level of secondary significance was assigned to spaces of moderate functional importance whose finish materials were slightly less grand than those of the primary spaces. Included in this group were the main corridors at each story, the rear stairhall, most rooms at the second story, and the rooms north of the Senate President's Suite at the third story. Many of these spaces have undergone unfortunate alterations designed largely to create more private office space. Most of their original detail remains, however, so that their former appearance could be restored through removal of later intrusive material rather than through reconstruction of what was there originally. Although the corridors and rear stairhall are ranked at the secondary level of significance, they should be restored to the same standard as the primary processional spaces and at the same time due to their close physical relationship and high public visibility.

Contributing Significance

Spaces of contributing significance generally serve a repeated support function within the building and are substantially less sumptuous in their finish materials and execution. Included in this group were most of the offices and committee rooms of the first and fourth stories which were finished with oak rather than mahogany, had brick and terracotta rather than marble faced fireplaces, and generally lacked highly decorative ceiling treatments. These spaces survive in a variety of conditions, ranging from intact to heavily altered.

East and West Wings

The East and West wings of 1914-1917 appear to have been designed with economy in mind, and generally lack the fine interior finishes of the Bulfinch building and Brigham extension. The highest level of significance assigned here was contributing, and it was applied only to the marble finished corridors and stairwells and to the suite of rooms on the third story of the West Wing adjacent to the Governor's Suite.

Significant Feature Chart

Bulfinch Building

Feature	Level of Significance	Remarks
Cornice, drum of dome	Primary	May be only remaining original woodwork
Patarae on arcade	Primary	Original or early feature
Iron railing of colonnade	Primary	Original or early feature
Capitals of attic story pilasters (south & north)	Primary	Early or original feature of uncertain composition; preserves early paint history
Most brickwork	Primary	Most brickwork is original and may represent early use of machine-made brick
Finials on cupola	Primary	One or more may be original, surviving through rebuildings of cupola
Marble keystones of arcade (except second from west)	Primary	Appear to be original
Upper marble beltcourse	Primary	Appears to be original
Some modillions and brackets in main, attic story, and portico entablatures	Primary	Possibly re-used original features
Marble lintels over three central windows in portico	Primary	Possibly re-used original features
Timber ribbing of dome	Primary	Original feature; Possibly laminated; national prototype
Copper sheeting of dome	Primary	Early feature likely dating to 1830's

Feature	Level of Significance	Remarks
Brickwork within portico and arcade	Secondary	Rebuilt by Washburn in 1867
Granite foundation	Secondary	Dates largely from 1850's
Door casings behind colonnade	Secondary	Date to 1867, although moved in 1890's
Cupola	Secondary	Dates to 1890's; relatively accurate reproduction of original
Granite terrace in front of portico	Secondary	Dates to 1890's
Drum of dome; windows and copper sheets	Secondary	Dates to 1890's although some elements may be earlier
Copper roof; attic story	Secondary	Probably dates to 1890's
Wood balustrade of main building	Secondary	Probably dates to 1890's, replacing original
Copper balustrade of main building	Secondary	Dates to 1914-1917
Portico colonnade	Contributing	Dates to 1960's, accurately reproducing originals
Main and attic cornices	Contributing	Date to 1960's, some elements may be re-used originals
All doors and sash	Contributing	Date to 1960's accurately reproducing 1890's work
Most sash and door casings	Contributing	Date to 1960's accurately reproducing 1890's work

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Material/Art- istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
Bulfinch Building							
Room 183	Space created in late 19th century	Low	Low	1890's	Low	Rehabilitate	Paneled doors & casings
Room 184	"	Contributing	Contributing	"	Contributing	Preserve	Plaster ceiling and moldings; paneled doors & casings
Room 185	"	Low	Low	"	Low	Rehabilitate	Paneled entry door & casings; drop ceilings; new wall paneling
Room 186-192	"	"	"	"	"	"	Storage and lavatory space
Room 193	"	"	"	"	"	"	Paneled wood doors & casings (unpainted); plaster ceilings; new wall panelling
Room 194	"	Contributing	Contributing	"	Contributing	Preserve	Plaster ceilings and moldings; paneled doors & casings
Room 195	"	Low	Low	"	Low	Rehabilitate	Paneled doors & casings; drop ceiling
Room 200	Attorney General	Secondary	Secondary	"	Secondary	Preserve/ Restore	Original mezzanine floor removed; high plaster ceiling with decorative cornice; built-in furnishings; doors

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Material/Art-istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
Doric Hall	Same	Primary	Primary	1890's	Primary	Restore	Reproduces original Bulfinch design; rows of Doric columns; corner niches; cornice; door surrounds
Room 259	Lieutenant Governor	Secondary	Secondary	1890's	Secondary	Preserve/ Restore	Original mezzanine floor removed; high plaster ceiling with decorative cornice; built-in furnishings; doors; recent wainscotting
E&W Corridors Second Floor	Same	"	"	"	"	"	Attempts to reproduce Bulfinch design; stairs; cornice; doors & casings
Senate Reception Room	Senate Chamber	Primary	Primary	1790's 1860's 1890's	Primary	Restore	Room retains important features from all periods of its history; columns and pilasters; decorative ceiling; gallery
Senate Chamber	House Chamber	"	"	1790's 1860's 1890's	"	"	Room retains important features from all periods of its history; domed ceiling; rusticated walls; galleries; niches; doors and casings

Number/Name	Use	Symbolic Significance	Material/Artistry of Design	Features	Level of Significance	Recommended Treatment	Remarks
Governor's Office	Council Chamber	Primary	Primary	1790's	Primary	Restore	Most intact of all Bulfinch designed rooms; decorative plaster walls; door surrounds; chandelier; marble fireplace
Council Chamber	Governor's Office	Secondary	Secondary	1890's	Secondary	Preserve/ Restore	Plaster ceiling with modillion cornice; paneled wood doors and plaster architraves
Governor's Inner Lobby	Same	"	"	"	"	"	Plaster ceiling with modillion cornice; paneled wood doors and plaster architraves; staircase
Governor's Outer Lobby - Senate Lobby	Same	"	"	"	"	"	Plaster ceiling with modillion cornice; paneled wood doors and plaster architraves; disrupted by mid-20th partitions
Fourth Floor Offices	Same	Contributing	Contributing	1890's	Contributing	Preserve	Plaster ceilings; paneled doors and architraves

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Material/Art-istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
Brigham Extension							
118-119	Secretary of State's Shipping Room	Contributing	Contributing	1890's	Contributing	Preserve	Plaster ceiling with ornate moldings; paneled doors & casings; unsub-divided space; original book-shelves with egg & dart moldings on north wall
121-122	Matron's Room	Low	Low	"	Low	Rehabilitate	No significant detail
123	Commissioners of State Aid	Contributing	Contributing	"	Contributing	Preserve	Plaster ceiling with ornate moldings; large marble fireplace with painted mantel; paneled doors & casings
124	Clerk's Office	"	"	"	"	"	Plaster ceiling and moldings; brick fireplace and painted mantel; paneled doors & casings
125	Board of Commissioners of Savings Banks	"	"	"	"	"	Plaster ceiling and moldings; brick fireplace and painted mantel; paneled doors & casings
126	Private Office	"	"	"	"	"	Marble fireplace with painted mantel
127	Board of Arbitration and Conciliation	"	"	"	"	"	Retains original safe; fireplace; plaster ceiling
128	State Board of Arbitration	"	"	"	"	"	Retains original fireplace and plaster ceiling

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Material/Art-istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
130	Harbor and Land Commissioners	Contributing	Contributing	1890's	Contributing	Preserve	Retains ornamental plaster ceiling; generally unsub-divided space
131	Clerk's Office	"	"	"	"	"	Plaster ceiling and moldings; brick fireplace and painted mantel; paneled doors & casings
134	Engineer/ Private	"	"	"	"	"	Unsubdivided space with freestanding columns; ornamental plaster ceiling; part of original corridor blocked to form vestibule
136	Board of Agriculture	"	"	"	"	"	Freestanding columns support ornamental plaster ceiling; part of original corridor blocked for vestibule
137	Storeroom	Low	Low	"	Low	Rehabilitate	No significant detail
138	Topographical Survey	Contributing	Contributing	"	Contributing	Preserve	Freestanding columns support ornamental plaster ceiling; part of original corridor blocked for vestibule

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Material/Art-istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
139	Board of Health; Engineering Department	Contributing	Contributing	1890's	Contributing	Preserve	Original features largely obscured by partitions and drop ceilings; fireplaces remain
140-144	Board of Health; Gas & Electric Light Commissioners	"	"	"	"	"	"
145	House Ways and Means	"	"	"	"	"	Simple fireplace and plaster ceiling
146	Sargeant-at-Arms	"	"	"	"	"	Original character obscured by drop ceilings, partitions, blocking of internal doors & windows; part of corridor blocked for vestibule
154-155	Information/ Public Telephone	Low	Low	1890's	Low	Rehabilitate	Simply molded plaster ceiling
156	Storeroom	"	"	"	"	"	Plaster ceiling and moldings; paneled doors & casings; partial drop ceiling.
157-158	Pension Department	Contributing	Contributing	"	Contributing	Preserve	Plaster molding below drop ceiling; brick and oak fire-place; paneled doors & casings

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Material/Art-istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
203	Attorney General	Contributing	Contributing	1890's	Contributing	Preserve	Paneled doors with plaster architraves and cornice
222-223	Committee Room	Secondary	Secondary	"	Secondary	Preserve/ Restore	Marble and mahogany fireplaces with flanking secretaries; modillion cornice; arched doors
227	Treasurer's Office	"	"	"	"	"	Original character obscured by drop ceilings and partitions; retains safe and metal faced fireplace
228-229	Auditor's Office	"	"	"	"	"	Elaborate marble and mahogany fireplaces; decorative plaster ceilings; original built-in furnishings and clocks
230	Document Room	Low	Low	"	Low	Rehabilitate	No significant detail
232	Private Office	Contributing	Contributing	1890's	Contributing	Preserve	Retains simple marble/mahogany fireplace; plaster ceiling
234-235	Tax Commissioner Comm. of Corporations General Office	Secondary	Secondary	"	Secondary	Preserve/ Restore	Retains marble/ mahogany fireplace; elaborate coffered ceiling

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Material/Art-istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
236	Tax Commissioner	Secondary	Secondary	1890's	Secondary	Preserve/ Restore	Original character partially obscured by drop ceiling and partitions; part of original corridor blocked for vestibule; spiral staircase retained
237	Committee Room	"	"	"	"	"	Original character almost totally obscured by drop ceiling and partitions; part of corridor blocked for vestibule
238	Insurance Department	Contributing	Contributing	"	Contributing	Preserve	Generally retains simple fireplace and ceiling details; new paneling in some areas; part of corridor blocked for vestibule
242-247	Insurance Department	Secondary	Secondary	"	Secondary	Preserve/ Restore	Marble and mahogany fireplaces; one with glazed blue tile (247); decorative plaster ceilings
249	Committee Room	"	"	"	"	"	Marble and mahogany fireplace; high coffered ceiling built-in secretaries; elaborate door surrounds

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Material/Art- istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
250-251	Bureau of Labor/Census	Secondary	Secondary	1890's	Secondary	Preserve/ Restore	Original features such as freestanding columns and coffered ceilings largely obscured by drop ceilings and partitions; fireplaces; built-in furnishings
252	Bureau of Labor	"	"	"	"	"	Marble and mahogany fireplace; drop ceiling obscures detail
254	Bureau of Labor	"	"	"	"	"	Elaborate marble and mahogany fireplace; high decorative ceiling; partial height partitions
256	Surgeon General	"	"	"	"	"	Marble and mahogany fireplaces; new wood paneling & painting obscures detail
257-258	War Records	"	"	"	"	"	Marble and mahogany fireplaces; decorative plaster ceilings; original built-in and detached furnishings

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Materials/Art- istry of Design	Age of Major features	Level of Significance	Recommended Treatment	Remarks
324	Senator's Coat Room	Low	Low	1890's	Low	Rehabilitate	No significant detail
330 Senate President's Suite	Senate Reading Room; Clerk's Public & Private Rooms; Presi- dent's Office	Primary	Primary	"	Primary	Restore	Lush mahogany & marble finishes; elaborate plaster ceilings; original built- in and detached furnishings
332-333	Secretary of State	Secondary	Secondary	"	Secondary	Preserve/ Restore	Marble/mahogany fireplaces; other details obscured by numerous partitions
334	Registration Division	"	"	"	"	"	Ornate plaster ceiling; built- in bookcase; space largely subdivided; drop ceilings
335	Public Documents	"	"	"	"	"	Plaster ceiling with ornate molding; brick fireplace with marble mantel; room divided by partition
337	Corporation Division	"	"	"	"	"	Plaster ceiling with ornate molding; room divided by partition
340	Early Laws; Engrossing Clerk; Elections	"	"	"	"	"	Well-detailed mahogany and marble finishes; built-in furnishings; decorative plaster ceilings with elaborate moldings

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Materials/Art-istry of Design	Age of Major features	Level of Significance	Recommended Treatment	Remarks
341 State Library	State Library	Primary	Primary	1890's	Primary	Restore	Stained glass windows; arched decorative plaster ceiling; elegant balcony with bronzed balustrade
341 (and upper floors)	Library Stacks	Contributing	Contributing	"	Contributing	Preserve	Glass floors; iron stairs and bookcases
342	State Board of Education	Secondary	Secondary	"	Secondary	Preserve/ Restore	Fireplace; decorative plaster ceiling; paneled doors; plaster casings
343 House Majority Leader's Office	House Reading and Writing Rooms	Primary	Primary	"	Primary	Restore	Elaborate marble and mahogany fireplace; mahogany Post Office window; rich plaster ceiling; new partitions detract from character
345 House Reading Room	House General Reading Room	"	"	"	"	"	Elaborate marble and mahogany fireplace; mahogany paneling; high coffered ceiling; decorative plaster wall treatment
348 Conference Room	House Coat Room	"	"	"	"	"	Original marbleized wall treatment painted over; stairs to committee room above removed
350 Reception Room	House Reception Room	"	"	"	"	"	Original marble and mahogany fireplace; mahogany paneling; decorative plaster ceiling

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Materials/Art- istry of Design	Age of Major features	Level of Significance	Recommended Treatment	Remarks
House Chamber	Same	Primary	Primary	1890's	Primary	Restore	Elaborate mahogany paneling and seating; painted murals; mahogany gallery; domed coffered ceiling; (stained glass skylight removed)
354 House Speaker's Office	Speaker's Private Room	"	"	"	"	"	Mahogany/marble fireplace; mahogany paneling; elaborate plaster ceiling; paneled doors and casings
355 Speaker's Suite	Committee on Rules	"	"	"	"	"	"
356 Speaker's Suite	Speaker's Secretary	"	"	"	"	"	Mahogany/marble fireplace; elaborate plaster ceiling; paneled doors and casings
357-358 Speaker's Suite	Clerk of House	"	"	"	"	"	Mahogany/marble fireplace; elaborate plaster ceiling; paneled doors and casings; new paneling and partial height partitions detract

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Materials/Art-istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
427-429	Committee on Roads	Contributing	Contributing	1890's	Contributing	Preserve	Roman brick & oak fireplace with flanking bookcases; sky-light; original furniture
431	Committee on Federal Regulations	"	"	"	"	"	Roman brick & oak fireplace; built-in book-case; skylight
433	Senate Judiciary Committee	"	"	"	"	"	Marble and oak fireplace; stained glass entry door and skylight
435	Senate Committee on Rules	"	"	"	"	"	Refitted as kitchen; retains skylight and bookcase
436	Committee on Mercantile Affairs	"	"	"	"	"	Roman brick and oak fireplaces; flanking book-cases; skylight; original furniture
437	State Archives	"	"	"	"	"	Pressed metal fireplace; skylight
438-440	State Archives	"	"	"	"	"	Vaulted ceiling; fireplaces obscured & space disrupted by modern partitions
443	Committee on Metropolitan Affairs	"	"	"	"	"	Marble, terra cotta and oak fireplace; sky-light;space disrupted by modern partitions

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Materials/Art-istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
444	Educational Museum	Contributing	Contributing	1890's	Contributing	Preserve	Fireplace; skylight
445	Committee on Election Laws	"	"	"	"	"	Roman brick and oak fireplace; skylight
446	Committee on Liquor Laws	"	"	"	"	"	Marble and oak fireplace; skylight
448	Committee on Manufacturers	"	"	"	"	"	Terra cotta and oak fireplace; skylight; older partial height partitions
450	Committee on Education	"	"	"	"	"	Fireplace; skylight; older partial height partitions
452	Ladies Reception Room	Secondary	Secondary	"	Secondary	Preserve/ Restore	Glazed blue brick and oak fireplace; skylight; some original lav. fixtures
House Gallery	House Gallery	Primary	Primary	"	Primary	Restore	Ornamental carved balu-sters; original mahogany benches
455	Committee Room	Contributing	Contributing	"	Contributing	Preserve	Skylight
456	"	"	"	"	"	"	Brick and oak fireplace; book-cases; skylight; vaulted ceiling
458	"	"	"	"	"	"	Skylight with ornamental plaster surround

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Materials/Art-istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
460-462	Committee Room	Contributing	Contributing	1890's	Contributing	Preserve	Brick and oak fireplace; book-cases; skylight; original furn-ishings; drop ceiling
Vestibule to Doric Hall	Same	Primary	Primary	1890's	Primary	Restore	Marble finishes; statuary
Senate Stairhall (Nurses' Hall)	Same	"	"	"	"	"	"
Memorial Hall (Hall of Flags)	Hall of Flags	"	"	"	"	"	Marble finishes; flags; paintings; stained glass skylight; decorative domed ceiling
Main Stairhall	Same	"	"	"	"	"	Marble finishes; freestanding columns; cof-fered ceilings; marble & metal stair; landing windows
Rear Stairhall	Same	Secondary	Secondary	"	Secondary	"	"
Main Corridors	Same	"	"	"	"	"	Marble floors & wainscotting; pilasters; plaster ceilings entry surrounds
Second & Third Floor Corridors adjacent to Main Stairhall	Same	Primary	Primary	"	Primary	"	Marble floor & wainscotting; pilasters; plaster ceilings entry surrounds; freestanding columns & cof-fered ceilings
Basement Corridors	Same	Contributing	Contributing	"	Contributing	Preserve	Glazed white tile walls; panelled doors

Present Room Number/Name	Original Use	Functional/ Symbolic Significance	Quality of Materials/Art- istry of Design	Age of Major Features	Level of Significance	Recommended Treatment	Remarks
East and West Wings							
Stairwells	Same	Contributing	Contributing	1914	Contributing	Preserve	Marble stairs with decorative metal balustrade and marble newel finials
Corridors	Same	"	"	"	"	"	Marble floors, wainscotting & surrounds; panelled metal doors; plaster ceilings

Chapter 6
Preservation Program

6.1 Methodology

The Massachusetts State House has been thoroughly documented and described in this study. The architectural history, existing conditions, and testing and analysis contribute to a clear picture of the building as it was, and is. The final task of the report is to recommend a course of action for the building's preservation and restoration.

Preservation recommendations are the logical conclusions to an Historic Structure Report. No set of recommendations could cover all the contingencies and conditions of such a large complex. Therefore, the recommendations first establish general goals. Through goal-setting, we are establishing a broad framework within which current and future work items can be considered. If the goals are accepted, then proposed actions can be measured within their light. The goals are general; preservation recommendations are the specifics. Both reflect the team's preservation philosophy and specific attitudes towards the State House.

As indicated in the introduction to this report, the goals and recommendations set an agenda for action. In many instances, the agenda is restoration. In other cases, change is recognized as legitimate and appropriate.

The guiding principles for restoration of the State House are developed from relevant past case studies, accepted national and international conservation standards, academic and investigative review of specific existing conditions and most importantly, thorough historic chronologies and documentation. In all cases, work performed should conform to the Secretary of the Interior's Guidelines for Historic Preservation Projects. These are well-researched, supported by relevant case studies, and readily available. These components are the basis for goal setting.

6.2 Preservation Goals and Recommendations

The Preservation Goals have been summarized in Section 2.4. This section elaborates the goals, and proposes a specific set of recommendations for the building's exterior and interior, and for administration of the building and its site.

6.2.A Exterior

The team has established four goals for exterior preservation. The goals are set within this context: the team recommends the preservation of the existing appearance of the Bulfinch building and the 1914 wings. The team recommends restoration of the Brigham extension, reinstating significant original elements which have been removed. The team does not recommend conjectural restoration of any aspect of the exterior of the building or site.

Goal 1: Restoration and maintenance of a weathertight and well-protected building shell.

This goal is achieved by undertaking all of the required masonry, roofing and skylight repairs. The survey of existing conditions (Chapter 4) reports numerous leaks, many of which threaten historic finishes, books, drawings, furnishings and works of art. The building shell should be made completely weathertight before the interiors are renovated. Vigilant future maintenance will be required to keep the building weathertight and avoid the excessive costs of moisture-related shell deterioration.

Masonry

The range of masonry materials and accompanying range of masonry problems requires a specific program of treatment for each area and for varying conditions and materials. Masonry conservation, and appropriate cleaning, is undertaken in order to retain, preserve and protect the building fabric. Masonry conservation and repair is not an option, and treatments must be tested and thoroughly specified prior to implementation. Without such work, the buildings will ultimately be destroyed. Specifically, the masonry study (Chapter 4) recommends the following:

1. Bulfinch Building

    1. Repoint brick walls and marble trim only where mortar is missing or deteriorated. No coatings, consolidants, water repellants or cleaners should be applied. The Bulfinch building requires only minor work at this time. Limited paint removal

would clean the building of its accumulated paint drips, but this work is optional.

2. Repair terrace to stop water infiltration. Clean, repoint and seal cracks in basement level granite to stop water infiltration. This work is a high priority, as the leakage is active and destructive.

2. Brigham Extension

1. A complete, detailed study of the condition of the marble trim is recommended. This study should address the cause and treatment of cracked marble at colonnades and window lintels; the condition of belt courses, balustrade, cornice and other trim including columns and engaged balusters, and the appropriate materials for repointing. The study should test marble cleaning methods, and consider the applicability of recently developed stone consolidation treatments for this marble. Repairs to the marble trim are a high priority item, as damaging crusts and materials losses are obvious and on-going. Intervention now will be more cost effective than replacement when the materials are thoroughly worn.

2. Clean areas of brick body and granite basement story not cleaned during the 1970's. Repoint to fill joints where mortar is cracked, deteriorated or has lost bond. Consider the use of newly developed methods of filling narrow masonry joints, established by Morgan Phillips of SPNEA. When a complete wall is repointed, the original mortar color (buff), and tooling (raised bead) should be reinstated.

3. Rebuild and repoint light well and courtyard masonry to make building weathertight. This is a high priority item, as collapses and losses are obvious.

3. 1914 Wings

1. Investigate and determine a repair strategy for cracked and displaced marble masonry at corners and cornice. This is a priority item.

2. Determine source of pink stains on marble.

3. Clean, following testing using gentlest methods, marble and granite masonry. Repoint granite base where necessary.

Roofing

For State House roofing, the visibility or non-visibility of roofing materials and profiles are key issues. In all re-roofing, the team recommends documenting original material prior to removal to allow inspection and recording of sub-cladding conditions.

As established in the past roofing study by Patti Associates, Engineers, extensive replacement of roofing materials, including sheathing, gutters, valleys and downspouts are required. The original materials, when visible from a public way, should be reinstated. In areas not visible from a public way, such as areas of the roofs of the Brigham extension and the 1914 wings, a variety of high performance materials, such as membrane roofing, could be considered. Re-roofing should precede, or anticipate, the placement of vents, louvers and mechanical equipment, and the materials chosen should be suitable to the equipment, adjacent materials, and environmental conditions of the State House. In the Bulfinch building, the integrity of existing materials should remain, and slate, copper, and gold leaf on the metal base of the dome should remain intact, whether visible or not. Skylights are original to the Brigham extension, and are often visible from a public way. They should be repaired and retained in their original form whenever visible. Many interior skylights were originally glazed with opalescent glass and had interior lattices, and they should be reinstated as an excellent daylight source for the fourth floor committee rooms and offices which they served.

The roofing metals, such as copper downspouts, gutters and other oxidizing materials, do stain adjacent materials. Such stains, if properly treated every decade or so, can be removed and are not deleterious to the masonry. Rust stains can usually be removed if treated within the first years of staining, but the source of the staining should be corrected. In most cases, rust stains are caused by rusting air conditioner metals; these units will be removed when the new air conditioning system is installed.

Goal Two is the special treatment of original and early features of the Bulfinch building. Extraordinary efforts, beyond conventional construction methods, should be taken for these unique and historic features.

The early and original features of the Bulfinch building have been identified and dated as part of this study. Historical research has corroborated the testing and analysis of these

elements, to confirm their age. The original Bulfinch elements include the following:

1. Cornice of drum of dome (this may be the only original woodwork remaining.)

2. Paterae (roundels) in arcade below portico.

3. Iron railing of portico.

4. Capitals of attic story pilasters, those exposed below south pediment and those concealed (against Brigham extension) below north pediment.

5. Most areas of brickwork. (Replacement brickwork is discernable due to slight changes in color.)

6. Finials on cupola. (These may be original but relocated elements and require further analysis.)

7. Marble keystones of arcade (except second from west).

8. Upper marble beltcourses.

9. Possibly some modillions and brackets in main entablature, attic story entablature, or portico entablature. (These may be original but relocated elements.)

10. Marble lintels over three central windows inside portico. (These may be original but relocated.)

11. Copper sheeting of dome (not drum).

For comparison and reference, later and early twentieth century features have been identified and corroborated, and include:

<u>Mid Nineteenth Century Features</u>

1. Brick wall within portico and arcade.

2. Most of granite foundation.

3. Casings of doors onto portico (upper level).

<u>Late Nineteenth and Early Twentieth Century Features</u>

1. Cupola

2. Granite terrace in front of portico.

3. Drum of dome, inlcuding windows and copper sheets, but not cornice.

4. Copper roof of attic story.

5. Roof balustrade of portico. (Requires further investigation for final certainty of date.)

6. Roof balustrades on side portions (early 20th C.).

Mid Twentieth Century Features

1. Entire portico, above arcade level.

2. Main and attic story cornices.

3. All sashes and doors.

4. Most sash and door casings.

There is a course of action and treatment appropriate to each of the items identified as original or early. The elements should be inspected annually for signs of deterioration. Any treatments or repairs should be thoroughly documented, and recorded with supplementary photographs. A conservator and experienced restoration craftsman should be employed for inspections and repairs. Before a course of treatment is implemented, there should be sufficient discussion and review with the State House administrators and conservators. Nineteenth century features are also important, reinstating earlier designs and reflecting the building's history of change. They are of secondary significance, but given the quality of their construction, the highest standards of conservation technology should also be considered in their treatment. Only the most qualified conservators and craftsmen should establish and implement treatments for these elements.

Goal 3: Reinstatement of significant lost features, and repair and proper treatment of other exterior features of the Brigham extension, the 1914 wings, and the site.

There are many fine remaining exterior architectural features of the Brigham extension, the 1914 wings and athe site. These include marble pilasters and columns, wood and marble balustrades and cornices, iron railings and fences, wood sash, wood doors and casings, and painted wood trim. Lost features of the Brigham extension include the east entry porch and the cresting of the House of Representatives. The wings have lost handsome light standards which flanked the entries. The site has lost its Beacon Street fence, as well as the entire East Park, now a parking lot. The park will be discussed under Goal 4.

These significant missing features should be accurately reinstated, using original drawings and documentation. None are beyond the reach of available materials or technology, but all of the items are costly to replace. They are, however, of primary architectural significance, and their reinstatement is part of a commitment to the general goal of retaining original appearance for as many parts of the building as possible. The support for their reinstatement is already widespread.

The remaining elements are vulnerable to weather and mistreatment. Some have been lost and removed for want of proper maintenance and repair. While their loss does not contribute immediately to building leaks, structural problems or interior deterioration, they are lost as the original or later architectural details and decorative elements which contribute to the building's value and architectural significance. Their replacement is expensive, and in many cases, avoidable.

Each element requires an understanding of its construction, installation and material. There is no uniform treatment which will solve all of the wood, metal or marble deterioration Some further testing is required to establish correct methods and materials to be used to consolidate, repair and increase weather resistance of these materials. The goal is to properly maintain and repair these elements and, if repair is not possible with current technology, to properly protect the element from further deterioration. Without annual inspection and maintenance, repairs will be short-lived.

The team has identified the following exterior materials as the most vulnerable and deteriorated, in need of further study, research, or prompt conservation action.

Specific elements to be addressed as part of Goal 3 include:

1. The marble balustrades at the roof, terraces, stair and parking lot of the Brigham extension.

2. The original sash and wood trim in the Brigham extension, as well as replacement building sash; metal sash of the 1914 wings.

3. Doors and door trim throughout.

4. Ornamental building and site metals.

1. <u>Marble balustrade</u>

   The condition of marble balustrades is discussed in detail in Section 4.3. The team has recommended a marble study as discussed in Goal 1. The replacement of

balusters with concrete replicas should be halted until the study is complete. A better matching cast concrete replacement can certainly be obtained and might be an acceptable solution, particularly at roof level. The study would establish proper repair treatment as well as replacement standards. Annual inspection of balusters will be essential. Loose balusters should be immediately and carefully removed and stored until the course of treatment is established, and the team recommends and inspection and selective removal in all areas where loose balusters threaten public safety.

Consider replacement of roof balusters with new marble or cast stone. If cast stone is used, standards for matching should be high. It may be possible to relocate remaining marble balusters to the lower level areas, where original material is more highly visible.

2. Exterior Wood Trim and Sash

Exterior woodwork at the Brigham extension includes sills, sash, trim, balustrades, cornices, and details. The general guideline is to preserve the early material, and to replace in kind where necessary. Systematic maintenance is the key to a wood preservation effort. Epoxies and preservatives can be used for long-lived repairs, and allow the original wood element to survive. The restoration of early paint schemes is encouraged, and the Bulfinch building today is close to its original colors, and there is little painted trim on the wings. The Brigham extension should be tested to establish a paint history prior to repainting any exterior areas.

Metal sash at the 1914 wings should be lacquered to prevent oxidation and runoff. Sash replacement will be a major concern for the Brigham extension and the wings. The single glazed sash in the Bulfinch building are modern (1960's), and with proper maintenance, they should last. The Brigham extension windows are shaky and loose, and many have deteriorated sash, frames and trim. A comprehensive window survey has not been undertaken, but would determine the extent of replacement and conservation necessary. If complete replacement of an entire flank's windows is considered, then thermal glazing will certainly be raised as an issue. Given a 2 light over 2 light configuration and the size of wood members and muntins, it will be possible to replace the windows in kind with insulated glass, or thermal wood windows. The design and details of the new windows are crucial to an acceptable result, and metal or clad windows with an altered layout or detail are not acceptable for this historic building. Inevitably, a

more reflective appearance will result from thermal glazing, so the glass type should be selected for low reflectivity, but should not be tinted or colored in any way. Wood windows are the most appropriate solution for the Brigham extension. Existing muntin profile and size should be maintained. At the wings, the weight and stiffness of existing metal clad windows allow good thermal protection. Thermal breaks should be maintained and installed where missing. Because the original windows are multi-paned, it will be difficult to replicate them with thermal glazing without increasing muntin size, and hence, overall appearance. If a matching acceptable thermal unit can be fabricated, it should be confined to the north, east and west elevations. The south elevation should remain uniform in reflectivity with the Bulfinch building.

3. Door and Door Trim

At the Bulfinch building, the south doors (circa 1960), are painted off-white. We do not know the design of the original doors, nor the original paint color, but as indicated in the Architectural History section, the doors may have originally been stained mahogany or grained. Research on painted Federal period doors is widely available and gives a range of typical exterior door and trim colors. The color could be chosen from this palette, but it would be more appropriate to return to the original finish, if it can be accurately determined.

At the Brigham extension, original doors remain in several locations, including the Mt. Vernon underpass entries and the east stairway entry. Originally, these doors were probably stained and varnished, closer in appearance to the north side doors of the Mt. Vernon Street underpass. They should be returned to this finish, as should their companion vestibule doors. Such a finish, if properly specified and applied, is more durable than paint. The door surrounds may have been originally painted, and if paint research confirms this, they should be returned to their original color, in a gloss finish.

At the 1914 wings, the bronze clad doors, though replacements, should be retained. They should be maintained in a lacquered finish for durability, and to avoid oxidation and runoff onto adjacent surfaces. These doors are appropriate to the building and match the sash in general design and material.

4. Metalwork

Specific techniques and finishes for restoration of metalwork are well-documented in several excellent preservation manuals and National Park Service sources. At the State House, architectural metalwork to be includes:

1. The Beacon St. entry arch and remaining fence
2. The Beacon St. fence, now missing
3. The Ashburton Place fence and gate
4. The light standards:
   Bulfinch: hanging lanterns (replacements)
   Brigham: East globes, bronze, (original)
   Wings: South globes, (modern)
   North globes, (modern)
5. Cast iron columns and aluminum column capitals at south Bulfinch porch (replacements)
6. South terrace site features: flagpoles, gates and stair rail
7. Mechanical equipment, including window air conditioning units, cooling towers, chillers.

The decorative features, such as fences, gates and light fixtures, can be protected and retained by proper abrasive preparation and repainting with zinc-based metal paints (or lacquer finishing for bronze elements). The Beacon St. fence, sold in 1944 to aid the war effort, is a great loss from the south elevation. This fence is well documented and should be replicated and reinstated. Its design is ornamental and its bar spacing allows an excellent view of the State House. It also counterbalances the Common fence and completes the sites curve at Bowdoin Street. Elimination of the hedge and a return to a less heavily planted terrace are proposed as part of the south landscape restoration.

The galvanized metal fence at Ashburton Place should be removed as part of the restoration of the east landscaped park. The original metal work around the landscaped park and at the Ashburton gate is well documented and should be replicated and reinstated. It will visually define the State House grounds, and also secure the park at night.

Mechanical equipment at the State House is generally located on the roofs or in the air shafts and area ways on the north end of the Brigham extension. In these secluded areas, the units rest on concrete paving and do no significant damage to the historic building fabric.

In areas where systems are exposed or attached to the building, the effects are unsightly and damaging. For example, the recessed brick and marble porch elevation on the Hancock and Mt. Vernon Streets, above the underpass, shows condensate and chilled water lines running vertically into every window opening. Dripping, rusting, as well as unsightly appearance, are the results. In areas where window air conditioning units remain, both the units and their mounting brackets cause rust runoff onto the masonry. The units are used extensively throughout the building.

Goal 4: Appropriate Treatment or Restoration the State House Site and Site Features.

As established in the Landscape History, these include grounds, roadways, paths, steps and terraces. In addition, restoration and maintenance of site metals and sculpture are a priority.

Major areas of concern include:

1. The South Terrace (Beacon Street)

   The preservation program cannot attempt to reconstruct the original site or landscape, but should respect the historic attitude towards the site. The site was always terraced and simply planted; that simplicity should be reinstated. The landscape analysis and masonry analysis establish the specific work to be accomplished on the grounds and the masonry site features. All of the site work should be undertaken at the same time to establish the proper grades for the entry steps. The redesign of the Gardner Auditorium access is encouraged, and with it, the possibility of a ramp for handicapped access to the East wing, discreetly designed in high quality masonry materials which are well related to the terrace and steps, should be considered.

2. Ashburton Place Parking Lot (original East Park)

   The original appearance of the East Park is well-documented. Paths and plantings were simply placed in a design reminiscent of 19th century continental urban landscapes and boulevards. The Brigham east porch, now removed, was a focal entry, and should be reinstated. Today the east doors provide access from the parking lot, and the ground floor handicapped-accessible entry is dimly lit and dungeon-like, a poor welcome for handicapped visitors and workers. The grade from the Ashburton terrace, now a parking lot, drops off steeply from the State House to One Ashburton Place, and is a busy traffic area, with narrow State House sidewalks and

treacherous pedestrian conditions in rain, snow or ice.

When a park is reinstated at the Ashburton Place area, it should draw its inspiration from the original 19th century design. Accurate reproduction does seem possible, and is encouraged. The popularity of such an amenity is well-established, and the park will probably be well used, making its pedestrian access to Bowdoin Street and Ashburton Place even more important. The grading between the buildings should be redesigned; the new State House underground parking lot might provide a pedestrian tunnel connection to One Ashburton Place. The park, in its overall design and materials, can be accurately reconstructed, though planted in accordance with the spirit of the original park, but with planting materials which are durable and can be reasonably maintained. The new urban park, must, in its design, reflect a realistic understanding of the State's abilities to patrol and maintain an urban recreational space. If the restored park cannot be protected, a design which can be protected should be considered, but should still be conceived in the tradition of the original simple, but elegant urban promenade park.

3. <u>The Mt. Vernon Street Underpass</u>

The underpass area brings together a series of materials and design elements: roadway, parking, entry and passage between buildings. It is a pedestrian and vehicle space, and retains the original masonry materials, glazed tile, vaulting, and panel wood doors. As discussed in the Masonry section, the base granite has been sandblasted. Sloppy painting has resulted in drips and marks all over both the marble and granite. The area is further marred by parking signs which assign the parking areas. The grey color of columns and steel is most likely modern, and the high intensity lighting is housed in unattractive and inappropriate industrial-style pendant fixtures. The original doors have been painted cream white. The restoration of this area is a simple process and would include the removal of paint from masonry, proper site and safety lighting, diminished, but clear parking signage, and removal of paint from doors which were originally stained.

Today, the underpass is viewed as a strictly utilitarian drop off point and parking area. The historic photographs of this area show that its architectural intentions were several: as a void between two masses, it has a Renaissance Revival style quality which evokes deep set porches and porte-cocheres in the European tradition. The underpass breaks the continuous

longitudinal direction of the Brigham extension, and suggests another direction. It is a gateway to Beacon Hill, one of America's oldest designated historic district, and should frame and greet the low rise red brick buildings, not simply terminate Mt. Vernon Street. As the Ashburton Gate provides foreground and gives the Brigham site its depth, the underpass brings a second axis to the site. As an important site feature, its elements should be restored and its volume and connections emphasized by the introduction of good architectural lighting, and original colors and finishes.

4. Site Sculpture and Monuments

Some site elements: flagpoles and fences, can be retained and restored with proper finishing and minor repairs. Others, like the Hooker, Hutchinson, Dyer and Webster monuments, require significant conservation efforts. Like the Shaw Memorial facing the State House, these bronze monuments have long been subjected to deleterious effects of weather and pollution. Even a superficial examination reveals that the monuments are deteriorated and should be repaired and restored. A detailed study of each monument by a qualified metals conservator would indicate the range of problems and treatments required for the preservation of the monuments. Once restored, they will, like the Shaw, require an annual maintenance cleaning and lacquering to avoid a future restoration.

5. Iron Railings and Lantern

These should be restored, and the Beacon St. fence reinstated. A detailed discussion of the elements is found in Goal 3.

6. Site Masonry

Extensive repair of site masonry is required to preserve the integrity of walls and to provide for the public safety. For recommended repairs to site masonry the reader is referred to a section of a previous study dealing with site condition and landscaping prepared by Douglas B. Footit and Associates, landscape architects (ref. Mass Project No. G82-4(R),) and to the Masonry section of this report. The following work must be considered as a top priority:

1. South (Beacon Street) steps: Rebuild and reset to make safe and level. This is a priority item, as current conditions do not conform to code and pose a public hazard. They are also causing leakage in the underground archives area.

2. South granite wall, along Beacon Street. Rebuild to alleviate the structural bulges.

3. North (Derne St.) granite steps: Reset and repair to properly align. These steps are extremely steep and somewhat misaligned.

6.2.B Interior

Chapter 5 evaluates and lists interiors and architectural features in order of their significance. Preservation goals respond to these evaluations. This section provides guidelines and information about restoration and change, but, as for the exterior goals, it is not a specification. These goals and guidelines rely on the standards of the Administrative section for implementation. They should not be implemented without proper collation of research and development of a solid, fully specified, work program. There are three goals for interior work:

Goal One: Accurate restoration of all areas of primary significance.

Goal Two: Appropriate treatment and restoration of all areas of secondary significance.

Goal Three: Protection and proper treatment of elements and areas of contributing significance.

These summary goals require specific interpretation for all affected areas.

Goal One: Accurate restoration of all areas of primary significance

For the Bulfinch building, these areas include: Governor's Office, Senate Chamber, Senate Reception Room, and Doric Hall. None of these is a single period room. All have been modified to a greater or lesser extent, but the composite appearance is respected, and considered part of the building's history. For the Brigham extension, the large ceremonial public spaces, such as Memorial Hall, the Senate Stair, the Grand Stair and the Brigham vestibule, and office suites of the highest ranking legislators generally comprise the list, as well as the State Library. The wings contain no areas of primary significance.

Governor's Office

The Governor's Office, formerly the Council Chamber, is the only remaining interior composed primarily of Bulfinch elements; the Governor's room merits museum quality restoration and interpretation. There is further research to be undertaken prior to development of a final proposed interior scheme. Paint testing was considered too intrusive but must be undertaken prior to restoration. The analysis will most likely reveal a color system for walls, trim, ceiling, and decorations. All decoration, when repaired or treated, merits complete documentation and the highest available conservation

treatments. Later elements, like the fireplace (c. 1809), chandelier (c. 1850) and doors c. 1897), are important additions to the room and should be retained and treated appropriately. As noted in the Testing and Analysis section, the fireplace may be by Asher Benjamin. The chandelier, as noted, has long been shown in historic views of the room.

Cleaning methods and repairs again deserve comprehensive research and review. The Testing and Analysis section carefully identifies preservation issues in this room.

Among specific recommendations for the Governor's office are the following:

Paint Study

A thorough paint analysis should be undertaken to identify the original paint scheme. Later schemes which may have coexisted with the nineteenth century mantel would also be of interest. The original scheme should be reinstated.

Window Seats

These original mahogany seats, now cut and painted, should be restored and appropriately finished.

General Wall and Trim Conditions

Much original fine trim detail has been obscured by successive paint applications. Crisp detail would result from paint removal, but such removal is to be undertaken only if the paint history is well preserved in a documented location, and the methods of stripping must be developed in detail by a qualified conservator. No stripping should remove the earliest paint layers or damage the underlying plaster.

If new paints are added, the thinnest possible paints are recommended so that detail is not further obscured and restoration made more difficult.

A specific recommendation for the moulding is careful conservation of 3 feet of original composition "pannel moulding", located below the western air duct on the north wall.

Mantel

The cracks and settlement noted in the Existing Conditions section should be checked at yearly intervals to determine if deterioration is accelerating or if stabilization is required.

Chandelier

Proper metal conservation of the chandelier would include a detailed examination of the successive layers of varnish and surface materials. The chandelier is clearly not in its original visual condition, and once its original appearance is determined, it should be restored.

Senate Chamber

The present Senate Chamber has a composite appearance which is derived from the work of Bulfinch, Washburn, and Everett and Cummings. The domed ceiling has not been tested and should be thoroughly examined prior to any restoration work, as should the entablatures, and niches. This testing is of particular importance since the ceiling design cannot be securely dated based on historic documents alone. A paint analysis, essential for all rooms of primary significance, will probably reveal the original Washburn period colors. Since much of the dominant appearance is the work of Washburn, the team recommends a restoration to the 1860's appearance. Most of the subsequent changes can remain, as they relate more generally to furnishings arrangements, rather than the interior architecture. As established in the Testing and Analysis chapter, much Bulfinch work also survives, and should be carefully conserved. This room represents the most difficult and fascinating conjunction of the three periods. Original construction, and later renovations, should be very carefully interpreted in any guides and studies of the State House interiors. The structural condition of the ceiling is a concern and must be checked when better access is available. A complete structural probing, followed by any necessary consolidation and adhesive repairs, similar to the past program for the Senate Reception Room, would be appropriate to this and other original ceilings. The current deep blue color scheme is not historically based and should be changed if a period restoration is desired. Light fixtures were examined superficially and both sconces and chandelier should be stripped of their present coating, polished with non-abrasive metal polish, and recoated with appropriate varnishes.

Senate Reception Room

The Senate Reception Room has now twice been studied by the Society for the Preservation of New England Antiquities. Important discoveries of alteration and authorship have resulted from both studies. This spectacular room, monumental and beautifully furnished, is a tribute to the work of three inadvertent collaborators: Bulfinch, Washburn, and Everett/Cummings. The composite appearance is well understood, thanks to comprehensive historical research and physical

testing. The room survives primarily as a Bulfinch room, despite its later, quite sensitive, alterations. For the restoration program, clearly the extent and quality of remaining early wallpaper should be established. That wallpaper might be the original covering is a new discovery made during testing and analysis, and it should be verified. The ceiling condition should be re-examined and further consolidation and adhesion is recommended. (The Testing and Analysis section clearly indicates one area where readhesion is essential and should not be postponed.) Because the room is so well appointed, with fine carpeting, drapes, and American Empire style furnishings, special attention should be given to the damage caused by direct sunlight. Interior storm sash of ultraviolet resistant plexiglas should be installed in this room. Superficial examination of fabaric and wood surface reveals the effects of sunlight on them, and they are rapidly deteriorating. The team does not recommend any removal of the Washburn and Everett/Cummings work in any room. These renovations have acquired significance in their own right, and are important to the interpretive history of the room. Additionally, the appearance of the Bulfinch materials they replaced cannot be accurately documented, so any restoration attempt would be conjectural.

Doric Hall

Of all the Bulfinch rooms of primary significance, Doric Hall has experienced the most dramatic series of renovations. Today, Doric Hall, as the central public reception space of the building, reflects its Bulfinch era appearance, having been carefully restored by Cummings/Everett. Very little of original Bulfinch material survives, though there may be adequate trim at the cornice of column entablatures to develop a partial paint history when access is available. The current paint scheme is not representative of the probable original colors, and the room is disorganized and cluttered. Temporary exhibits and cases are arranged at the southern portion of the room, near a reception table for the State House Tours. There is a small, very different, exhibit installed in a sculpture niche. The overall effect is disappointing, and much can be done to improve the public reception and information needs. If displays are located in Doric Hall, they should be appropriate to the scale of the room. Doric Hall may be an excellent location for a permanent but not domineering display of State House history. As the building's central public reception hall, it deserves good organization and should meet public needs well. The docent table looks temporary and haphazardly arranged; the docents provide extremely important service to the State House and their function should be recognized with a permanent installation, if not in Doric Hall in some other clear accessible location. Doric Hall is the Bulfinch building's greeting and the first of the ceremonial promenade

and gathering spaces. Its stature requires proper restoration, presentation, and interpretation.

For the Brigham extension, the following open spaces are of primary significance:

Vestibule to Doric Hall
Senate Stairhall
Memorial Hall
Main Stair Hall

These contiguous open areas comprise the main ceremonial space in the Brigham extension. They extend and reinforce the position of Doric Hall as the formal greeting space, and they terminate at the Stair Hall which leads up to the House of Representatives.

In addition, these offices and meeting rooms are also of primary significance.

House of Representatives and House Gallery
Senate President's Suite (330)
State Library (341)
House Member's Suite:
    House Reading and Writing Rooms (343)
    House General Reading Room (345)
    House Coat Room (348)
    House Reception Room (350)
Speaker of the House's Suite

These richly appointed and elaborately finished spaces are the building's most important spaces. Most retain a high level of original historic architectural detail, but a substantial work program is still required to bring them back to their original appearance. The effects of a consistent well-designed restoration program would be dazzling. The team file, presented to the D.C.P.O., identifies the paint color schemes for many of these areas. But in general, these guidelines can be consistently applied to the rooms of primary significance.

Marble

In the primary ceremonial spaces, imported and domestic marble is used for wall, stair, and trim surfaces. The mosaic floors are composed of marble and stone chips set in a cementitious grout. The Testing and Analysis section indicates that wax removal, accomplished by a strong liquid detergent application, should be considered for wax removal. Much of the marble will not need repolishing, but any dulled surfaces can be repolished with appropriate machine tools. The mosaic floor grout can be cleaned out at open joints and refilled. Complete regrouting of the mosaic floor is unnecessary. Excessive water must be

avoided during interior masonry cleaning, but if a great deal of rinsing is required, the water can be power vacuumed. Detailed technical specifications must be developed for the final cleaning process, but general cleaning should be required at most once a decade. Rewaxing is unnecessary, and if a sealant is required, field testing will determine which of the acrylics is best suited to traffic conditions, non-yellowing requirements, and reversibility.

Painted Surfaces

For spaces of primary significance, original paint colors should be reinstated. Most of these colors are known, and are recorded in the Team File, a compendium of back-up technical information which accompanies this report. The colors are a rich array of warm, graded hues. The colors relate strongly to the palette of adjacent marble and mosaic tones. All of the colors are commercially available. Extra cost beyond standard painting may be incurred because multiple graded tones are often found within the various elements of a wall: dado, wainscot, flat surface or cove, or within a ceiling: cove, cornice, field or moulding. Graded colors are typical of Victorian interiors, and their effect is dazzling. As is well known in the construction industry, paint is one of the least expensive and most durable of all wall finishes. The appropriate sheens should be reinstated and are conventially available from numerous paint manufacturers. Special glazes are still available from a number of qualified painters, though they add to construction cost. Alkyd or latex paints may be used, but a good choice will be a paint system selected for proven washability and chip resistance; good color array and selection; proper sheen, good coating coverage, and color stability. The State should keep good records of paints used, but only small quantities of touch-up paint should be retained. Best results are achieved when paint is freshly mixed. Any paint is difficult to spot patch after initial fading and dirtying. For rooms where wallcovering has been documented and can be reproduced, wallcovering should be reinstated. Where such an approach would be conjectural, period paint is a more appropriate choice.

Panelling and Stained Wood Trim

Most of the mahogany panelling retained remains unpainted, but where it has been painted, it should be carefully stripped and restored. In other locations, mahogany and oak should be appropriately cleaned. Where varnish is worn, preparation will include fine steel wooling, and varnishing; these steps constitute a complete refinishing and areas cannot be patched-in.

Light Fixtures

One of the extension's greatest losses is its original light fixtures. These were splendid examples of Victorian design, and must have filled spaces with warm, glowing light showing original colors and materials to their best advantage. These fixtures were locally made and are well documented in historic photographs. For the ceremonial and public spaces, their accurate reproduction and installation is encouraged. Relamping with longer-lived and more efficient lamps is possible. Special consideration should be given to lamp color and intensity, these should be adjusted for the closest appearance to incandescent lamps.

Stained Glass

Fine examples of period leaded and stained glass are found throughout the Brigham extension. The work is seen in its most elaborate forms in the areas of primary significance. Two magnificent skylights are located in the extension; one in Memorial Hall, and one in the Main Stair Hall. A third monumental stained glass skylight, located in the House of Representatives, has been removed. Stained glass exterior and interior windows are found throughout the building, principally in the Main Stairhall and in door sidelights, panels and transoms. Most panels are in good condition, and should be gently cleaned with an appropriate window cleaner, non-abrasive and non-ammonia base. The skylight windows and Main Stair Hall windows are in deteriorated condition. Lead cames have separated from glass, and from visual inspection, glass looks loose and unstable in some areas. Access is problematic in high locations, but both skylights need extensive repairs and cleaning. There are many competent stained glass craftsmen in the state and work is surprisingly economic. As the stained glass further deteriorates, the repair work scope becomes more elaborate and costly. These skylights are virtually irreplaceable, and their restoration is a high priority. At the Main Stair Hall Palladian window, stained glass is loose and lead cames are cracked. Daylight can be seen between glass and lead edges. This glass is finely painted with small figures and decorative details. Caution should be exercised in cleaning these windows; portions of the painted areas have already been lost, probably from overcleaning.

The team strongly recommends the reconstruction of the House of Representatives skylight. This original and unique historic feature should never have been removed. It was part of the Commonwealth's artistic heritage and apparently was removed because it was a source of leaks and glare. The glare of any skylight can be well controlled from the exterior. Leaks should be confronted and repaired at the source. In the State

Library, where original stained glass has been removed, the original appearance should be documented and the windows accurately reproduced. If they cannot be documented, consideration should be given to a high quality modern interpretation in stained glass, well related to original colors.

Murals and Decorative Paintings

The Main Stair Hall is richly decorated at its upper walls and ceiling cove, with emblematic and scenic historic paintings on the plaster walls. These paintings enliven and decorate the area, but they are disfigured by dirt. In the case of the heraldic cove murals, colors are distinctly modified by the surface soils, so that the cove and skylight appear unrelated. The murals in the House of Representatives are equally important. In all cases, further study must be given to the condition of the paintings when better access is provided. From visual inspection, proper cleaning is the first step; the extent and type of necessary repairs must be assessed at the time of close inspection. The many qualified paintings conservators in Massachusetts make cleaning and restoration technically feasible. Other important murals requiring attention include those in the Senate Stairhall and in Memorial Hall.

Wallcoverings

The lavish wallcoverings found in many of the offices of the Brigham extension have long since been removed. Only the Coolidge Room wallcovering survives, and it appears to have been treated with varnish or shellac. It would be costly indeed to reinstate all of the lost wallcoverings in areas of primary significance. In some areas, the colors and pattern details would be conjectural. But there is adequate data, described in the Testing and Analysis section, to suggest that at least some rooms should have special finishes reinstated, and it seems most appropriate that such efforts be directed at the spaces of primary historic significance. The House Coat Room, for example, shows evidence of an original marbleized wall finish under the current drab paint. This should be carefully uncovered and reinstated.

Metals and Staircases

The stairs and balustrades, researched in the Testing and Analysis section, show some fine and unusual original metallic finishes. Regilding and repatinating is proposed for all metals and stairs in areas of primary significance. The undersides of the stairs, forming canopies, were also highlighted, and this should be reinstated. Though of secondary significance, the rear staircase was unusually

finished with silver gilding; this should certainly be reinstated. Testing and Analysis revealed that several original bronze elements had actually been covered with bronze paint, probably because they had dulled beyond recognition. Proper mechanical and hand polishing of metals can be preserved by application of an appropriate acrylic-based lacquer.

Specific concerns for areas and rooms of primary significance include the following:

Memorial Hall

Proper temperature and humidity controls are essential to preservation of the flag textiles which have recently been examined by Merrimack Valley Textile Museum. Light control will enhance the presentation of the flags but also causes heat build-up and should be addressed as part of the room's thermal control program. Certainly all the marble in this room should be cleaned, and the painting scheme in the domed ceiling reinstated. The repair of the stained glass skylight is essential.

Main Stair Hall and Stair Balconies

Extensive cleaning of marble columns and pilasters is required, as is restoration of the stair and balustrades. The mosaic and tile floors require limited repairs. Most important are the stained glass repairs, mural conservation and cleaning, and reinstatement of appropriate color and lighting schemes. Due to the close relationship of the stairhall to the East and West corridors, their restoration should be undertaken at the same time.

Senate President's Suite

This four office suite is richly panelled with mahogany. It retains much of its original built-in furniture. The Adamesque plaster ceilings in the Senate President's Office and former Senate Clerk's Office should be repainted in a more interesting and original scheme. The President's Office wallcovering is well documented and should be reinstated.

House of Representatives aand House Gallery

As discussed, the skylight should be reinstated (with filtering as necessary), as should the well-documented and highly original gallery and floor lighting. The murals should be closely examined, then cleaned and restored.

State Library

Remaining stained glass in transoms and skylights requires extensive restoration in the State Library. The original ceiling treatment, including a raised fleur-de-lis pattern has been replaced by a drab ceiling color. Balustrades and iron work should be reqilded. The appropriate paint scheme and lighting would dramatically improve this large unusual space, and the stained glass, as discussed, should be reinstated.

Clerk of the House

Multiple low partitions and lower wallcovering of non-matching panelled wood obscure the original treatments. These should be reinstated, as should the original elaborate ceiling treatment, which is well documented but now replaced by a monochromatic off-white.

Coat Room

The original stair has been removed, and reinstatement is unlikely. The drab interior belies the rich appearance of original marbleized walls, which should be restored.

House Members Reception Room

This room retains some of its original paint colors, and the balance should be reinstated. The stained glass requires conservation.

Other rooms in the original House Member's Suite do retain many features, but all have lost original finishes. These rooms should be refinished in their original scheme.

Goal 2: Appropriate treatment and restoration of all rooms of secondary significance.

Chapter 5 identifies rooms and areas of secondary significance. In the Bulfinch building, these are:

Present Use

Attorney General's Office
Lieutenant Governor's Office
East/West Corridors
Council Chamber
Governor's Inner Lobby
Governor's Outer Lobby

Most of these areas were sensitively revised by Cummings and Everett, and retain their late nineteenth century features. As

auxiliary spaces and support areas, they cannot compete with areas of primary significance, but they are well constructed, appropriate neighbors to Doric Hall and the Governor's Office. Designed by the Cummings and Everett team, they have acquired significance in their own right, despite minor subsequent alterations, including lighting, carpet, partitions and wallcovering. The Attorney General's Office has been formed of the original mezzanine space; it and the Lieutenant Governor's Office seem disproportionately tall for their width and length. However, a return to their Bulfinch appearance would be conjectural for these and other altered spaces. The program for the Bulfinch building's secondary spaces is retention and repair of remaining Everett and Cummings features, and appropriate treatment of all auxiliary features. Rooms should be painted appropriately, to reflect their period of construciton, and finishes like carpet and ceilings should be unobtrusive and if modern, well-related to an historic color scheme. "Colonial" chandeliers, recently manufactured and sometimes misscaled, abound in these areas and in the Brigham extension. If decorative lighting is considered it should be robust and well-detailed, filling the spaces and more closely resembling those found in the rooms at the end of the nineteenth century. Alternatively, lighting can be unobtrusive and well integrated into the room's features. This approach is successful in many rooms with cove and soffit lighting. As these rooms are scheduled for renovation work, individual programs should be drawn for them which preserve and protect historic configuration and detail, and restore historic finishes. Above all, the rooms should reflect the highest standards of rehabilitation design and construction. They are product of a distinguished past effort, and nonconforming and inappropriate elements should give way to a first class design effort which comprehends and respects the historic fabric.

For the Brigham extension, rooms and areas of secondary significance include the following:

Room	Original Use
222/223	Committee Room
226/227	Treasurer's Office
228/229	Auditor's Office
234/235/236	Tax Commissioner
237	Committee Room
242-247	Insurance Department
249	Committee Room
250/251	Bureau of Labor/Census
252,254	Bureau of Labor
256	Surgeon General
257/258	War Records
332/333	Secretary of State

334	Registration Division
335	Public Documents
337	Corporation Division
340	Early Laws
342	State Board of Education
452	Ladies Reception Room
	Rear Stair Hall

The room evalua .on chart summarizes room characteristics and indicates a "I :eserve/Restore" approach for each. An inspection of :hese rooms reveals the extent of prior alterations, in luding numerous partitions (many framed into, and obscuring, ornices, columns, wainscotting and panelling); dropped acousti tile ceilings, obscuring original decorated plaster ceilin s; wood wall panelling, covering original surfaces; and a array of other small alterations: original mahogany bleach l light to match newly installed different materials, sta ied natural wood and tile fireplaces now painted. Thes alterations are often insensitive to the original histor. materials, and in subdividing space and obscuring origi al features they have changed the scale and proportion of o iginal spaces. Less destructive but jarring nonetheless are :he quality of new finishes in these highly original spaces Low grade lush pile carpet, in an electric blue color; ubi uitous wedgewood blue wall paint with mahogany trime painted w ite for a "Federal" appearance; badly scaled "Colonial" ligh fixtures; plastic-coated wood panelling, and in general, a p or quality of installation and materials all contrast sharpl with the fine original appearance and the high quality craftsm nship of remaining architectural elements.

Recognizing tha the original rooms' scale and use may be redundant, the eam still proposes preservation, and when possible, resto ation of these spaces. The modern day office is radically di ferent from that of two decades ago. Larger spaces can be f exibly used with appropriate office systems. Recent improvem nts in word processing and widespread use of computers have made work environments much quieter; high quality office artition systems are flexible, quiet, and can maximize spatia utility. Large spaces can be utilized in many cases and effec ively serve numerous users. High ceilings are a fine work ame ity; architectural detail enhances the work environment. T e team recommends removal of modern partition walls and inapp opriate wall and ceiling treatments. As part of an overall a chitectural design effort, a program for each room should be eveloped, safeguarding and restoring remaining architectural d tails and features, returning the room to original propor ion whenever possible, introducing modern but compatible and nobtrusive new elements, such as lighting, acoustic surfac s, and mechanical equipment. Wall treatments and floor cover ng should draw on the known earlier schemes, and when finish s cannot be duplicated, they should at least be

chosen for their compatibility with the room's period and original palette. The result will be workable and original, and the remaining architectural significance of these interiors will be preserved and incorporated in active working environments. Again, the highest standards of design and execution are appropriate to this distinguished context.

Goal 3: Protection and proper treatment of elements and areas of contributing significance.

Rooms and features of contributing significance have been identified on the Room Evaluation Chart and include the following:

Current Room #	Original Use
Bulfinch building	
184	
194	
Fourth Floor Offices	
Brigham extension	
118-119	Secretary of State's Shipping Room
123	Commissioners of State Aid
124	Clerk's Office
125	Board of Commissioners of Savings Banks
126	Private Office
127	Board of Arbitration
128	State Board of Arbitration
130	Harbor and Land Commissioners
131	Clerk's Office
134	Engineer
136	Board of Agriculture
138	Topographical Survey
139	Board of Health
140-144	Board of Health
145	House Ways and Means
146	Sargeant-at-Arms
157-158	Pension Department
203	Attorney General
232	Office
238	Insurance Department
341	Library Stacks
427-429	Committee on Roads
431	Committee on Federal Regulations
433	Senate Judiciary Committee
435	Senate Committee on Rules
436	Committee on Mercantile Affairs
437	State Archives

438-440	State Archives
443	Committee on Metropolitan Affairs
444	Education Museum
445	Committee on Election Laws
446	Committee on Liquor Laws
448	Committee on Manufacturers
450	Committee on Education
455,456,458	Committee Room
460-462	Committee Room
	Basement Corridors

East and West wings

Stairwells
Corridors

Each of these spaces represents construction and design of a high quality, and each can be preserved and appropriately treated. Notable elements in these rooms include Roman and pressed brick fireplaces; skylights with interior transoms and lattices; pressed metal ceilings; marble flooring and trim; ornate ironwork; hardwood flooring, glazed tile and wall panelling. The spaces they occupy are not grand or ceremonial, but are certainly amply proportioned, originally well finished, and represent a high standard of design and construction quality for their purpose. In many cases, fireplaces have been painted over, pressed metal is cut; skylights have been removed and replaced with bands of harsh surface applied fluorescent lights. In all cases, the team recommends retention or restoration of these special original features and appropriate renovation of the spaces of contributing significance. In historic monuments, new design should be appropriate and subordinate to existing significant features. In these spaces of contributing significance, new design can be compatibly integrated with historic features. Academic restoration is not essential, but design within context is. Features should be repaired and returned to their original appearance; scale and spatial integrity should be reinstated or at least remain possible; changes should be reversible and new design, while creative, should respect and protect the architectural intentions and craftsmenship. No further intrusions and erosions of these areas or features should be permitted. Instead, the fine craftsmenship and remaining detail, and the dimensions and quality of spaces should be protected, reinstated, and respected.

6.2.C Administrative Goals

Preservation Goals address the building interior and exterior, as well as site and landscape aspects. Too often overlooked are the systems of phasing, management and review under which the work program will be implemented. Administration plays a pivotal role. Without proper management, a preservation plan cannot be implemented, and given the changing nature of uses and governance in the State House, steady clear administration may assure continuity and clarity of maintenance and restoration. There are four Administrative Goals for the preservation plan, but more could and should be established by knowledgable leaders familiar with state policy and procedures.

Goal 1: Collation and proper storage and use of the historic record.

Currently, historic drawings are scattered and ill-stored. Through the efforts of Nancy Schrock, archivist, and a small student group, an archival team organized and indexed the majority of the architectural drawings of the building. A subset index of structural drawings has also been compiled by LeMessurier Associates (see Team File). The HSR team has identified additional sources, and relevant maps, plans, and historic views. Technical research on building fabric has unearthed a wide variety of relevant but scattered documents on treatments to masonry, structure, roofing, and other important building elements. Some documents reveal that a suggested program of work might well have been developed without awareness of the materials or procedures used during a prior work effort. Certainly several of the masonry repair programs used methods and materials on the building ill-suited to the existing materials, and to prior efforts.

The team recommends proper archival storage and use of the drawings and construction documents. The historic drawings are deteriorated and threatened by poor storage conditions. Room 189, the main storage area, has numerous leaks and no humidity controls. The State Library and Archives also report numerous leaks. A useful and properly organized archive can insure preservation of this irreplaceable historic record and can make accessible relevant data so that future work builds knowledgably on past efforts. A State House construction archive is an essential first step. Specific conservation measures, suggested by Nancy Schrock, are included in the team file.

Goal 2: Provision for systematic review of proposed changes.

The State House is an active, well-used governmental building, as well as a major cultural monument. Continued use is important to building preservation; the State House must be an active and relevant landmark. The HSR has revealed the high quality of original design and materials found in the Bulfinch building and Brigham extension, and the utility and good construction of the East and West wings. The retention of historic detail throughout the building is high. Nevertheless, there are later extensive 20th century changes to the Bulfinch building and Brigham extension which show a comparatively low standard for renovation design and construction, using poor quality, short-lived materials, and ignoring or destroying the valuable and original historic detail. There have been well-regarded restoration and preservation efforts in areas of the Bulfinch building, particularly in the Senate Reception Room. But no internal review governs alteration or removals from interiors not protected by the Senate Art Commission. The Bureau of State Office Buildings has very limited design review powers, and many renovations are internally funded by the "current tenant", and built to suit user needs, without comprehensive design review or design assistance. The survival of so much of the Brigham extension is attributed to the high standards of original construction, with its still-appealing fireplaces and panelling, and to the scarcity of excessive funds for radical alterations. Still, the survey of existing conditions revealed a litany of repeated trangressions: walls and ceilings encasing ornate columns and destroying original plaster decoration; dropped ceilings hung over ornately detailed ceilings; panelling removed; mahogany and oak fireplaces painted over; mahogany doors painted over; cast bronze hardware replaced with cheaply made residential handsets; and in general, multiple partition walls erected within original grandly proportioned spaces, creating a rabbit warren of tall, compressed interiors with fragments of the original details emerging from the otherwise banal cramped settings.

The history of the State House is a history of change, but at its best, it has been well-reasoned, managed change. Large scale change has always fallen to executive and legislative review, as it should. These primary tenants must have a suitable working environment. Beyond the tenant group, landmarks often require a longer range stewardship, setting direction for the landmark through a preservation plan, and balancing intrusion, change, and modern-day needs within the arena of concerns for our cultural and architectural heritage. The team recognizes the multiple interest groups who must be served at the State House. The recent haphazard record of renovations threatens to further erode the building's remaining

historic fabric, and more costs will be incurred to reverse the effects of these alterations. Centralized and efficient review is essential, and sensible administration can offer positive results: design guidance, historical information, and appropriate construction standards. Criteria for review might include the following:

1. That the proposed changes have been thoroughly reviewed for their relationship to the overall preservation Master Plan. Review by a State House architectural historian is essential, and may reveal more about the original appearance than has been discovered within the limits of this report. Currently, there is no individual or group who can represent the buildings' history and preservation concerns. The state may consider appointment of a state architectural historian to oversee changes to the State House and other historic state-owned buildings.

2. The proposed methods and materials meet accepted performance and construction technical standards established for the State House. The Secretary of the Interior's Standards for Historic Preservation Projects and related technical publications are the current benchmark against which work would be measured. There are many appropriate technical documents and technical experts in the field. They should be used for the State House.

3. That the plans serve a long term need; that the work has been adequately budgeted to be completed with durable materials which are appropriate to their area of the building, and that the new use, if proposed, is appropriate to the general architectural configuration and significance of the existing space. Even during this study's course, many renovations have been undertaken which are decribed as "temporary". They soon become permanent and the building suffers long term disfigurement.

4. For every program of new work phased over the years, comprehensive preservation and appropriate levels of restoration of the area should be addressed. If renovations are planned for a hearing room, reinstatement of the original colors and restoration of the appropriate furniture should be undertaken as part of the renovation. New lighting, carpet and finishes should be chosen for their suitability to the new use, but also to the appropriate level of historic significance. Portraits, leaded glass, details and cabinetry within such a hearing room should be restored and featured as part of the renovation. The State House is its own treasure of architectural details, and original spaces,

wholly or partially intact, require few modern architectural embellishments. Modern intrusions should be respectful of the historic context.

5. That the proposed use relate well to the original configuration and construction of the room. Large spaces should accommodate open space or public use, and are divisible by flexible office systems. The general character of each room, spatial proportions and finishes should work in concert with a proposed use. The effort to "shoehorn" uses into inappropriate spaces has resulted in the rabbit warren configurations in the Brigham extension.

6. Documentation of changes: the change, including materials and methods, should be well-documented and recorded and ultimately included in the State House construction archive. (See Goal One)

Such a process is a radical shift for the administration of the State House. A heavily layered bureaucracy will defeat the administrative goal; and administrative process which is efficient and responsive will be most effective.

Goal 3 Annotation of the Historic Structure Report

The team has tried to make this report reflect the best research and documentation standards and technical preservation solutions available in 1985. The field of historic preservation is rapidly changing to include better and more carefully researched technical information. Such information is welcomed, and the team encourages professional review of the standards established in this report. Such review should occur at regular intervals, perhaps every four or five years, and should address new documentation and research undertaken on the State House, as well as new treatments and conservation techniques for materials and conditions addressed in this report and in on-going work.

The Interior Preservation Goals have identified areas for further research and areas where existing but unobservable conditions should be recorded when visible. This information will further illuminate the building's history and may change some aspects of preservation strategy established in this report. Even in the process of minor renovations to areas of the Brigham extension, more of the original historic is bound to be revealed. The process of construction should be recorded, as discussed, but information revealed should be made available and will certainly affect revisions to the HSR. For the HSR's continued relevance, commitments to further research and to annotations and revisions to this report are strongly encouraged.

Goal 4 The State House as a cultural resource.

The State House Historic Structure Report is a study of only the buildings and landscape of the State House. The heritage of the Massachusetts State House is architectural, but more broadly, is cultural. The building houses significant collections of art, documents, furniture, textiles, and historic objects. The State House may be termed an architectural landmark, but it is also a cultural resource, and its collections should be studied and protected. The restoration and protection of the collections will impact the program criteria for systems renovations: thermal, lighting and display requirements affect the mechanical systems design and also the programming for public and private areas. A Cultural Resource Management Plan should be developed as the basis for an Historic Preservation Guide. The Historic Preservation Guide is the National Park Service format for programming, housekeeping, and routine and cyclical preservation maintenance. Such a guide should be prepared as a working document following the planned renovations and should contain instructions, cyclical inspection and maintenance schedules and reference materials.

All building owners recognize that proper maintenance is a key to steady growth in the building value, and avoidance of major re-investment. The State House is no different. Clearly much of the interior and exterior work proposed by this report can be accomplished by trained maintenance workers, but much requires a skilled and well-supervised crew.

Finally, as the State House's architectural heritage is recaptured through its restoration, the processes and goals should be communicated. There is no exhibit of building history in the State House. The well-designed State Archives showcases are remote to the current visitor, and the docents and Doric Dames are the main source of building information. A permanent exhibit of the building's artistic and cultural heritage would reinforce and expand the information presented in the State House tours. Given limited public access to much of the State House, there is even more reason to present and explain this magnificent landmark to its many visitors, and to the citizens of the Commonwealth in particular. The architectural heritage of this government complex is unique and fascinating, and its restoration can inspire respect for the government and for the role of fine buildings in our civic and cultural life.

Room Number Chart

1984	Original Plan	1897	1901
118	118	n.a.	118
119	119	119	119
121	121	n.a.	121
122	122	n.a.	n.a.
123	123	n.a.	123
124	124	n.a.	124
125	125	125	n.a.
126	126	126	n.a.
127	127	127	n.a.
128	128	128	128
130	129-130	131	131
131	131	n.a.	n.a.
134	132,133	n.a.	n.a.
136	136	n.a.	n.a.
137	--- Not assigned a room number ---		
138	137,138 139,140	137,138 139,140	n.a.
139	141	n.a.	141
140	142	142	n.a.
141	143	143	n.a.
142	144	144	n.a.
144	145	n.a.	145
145	147	n.a.	147
145b	Not assigned a room number	n.a.	148
146	148-149,150 151-152,153	n.a.	148,150,151

1984	Original Plan	1897	1901
154	154	n.a.	n.a.
155	155	n.a.	155
156	120,156	n.a.	n.a.
157	157	157	n.a.
158	158	n.a.	158
181	159	n.a.	159
203	226	226	225
222	227	n.a.	227
223	228	n.a.	n.a.
227	230	230	230
228	231	n.a.	n.a.
229	232	n.a.	232
230	233	n.a.	n.a.
232	234	n.a.	n.a.
234	235	n.a.	235
236	237,238,239	n.a.	238
237	240	n.a.	240
238	241,242 243,244	n.a.	238
242	245	n.a.	n.a.
243	246	246	246
245	247	n.a.	n.a.
249	249	n.a.	249
250	250	n.a.	n.a.
251	256	n.a.	256
252	257	n.a.	n.a.
254	258	258	n.a.

1984	Original Plan	1897	1901
256	259	n.a.	259
257	260	n.a.	n.a.
258	261	n.a.	261
280	262	n.a.	n.a.
324	324	324	n.a.
330	325,326 327,328,329	n.a.	328,329, and some rooms not assigned a room number
332	--- Not assigned a room number ---		
333	330,331	n.a.	331
334	332	n.a.	n.a.
335	333	n.a.	n.a.
337	334	n.a.	334
340,340a	335,336	n.a.	n.a.
341	--- Not assigned a room number ---		
342	339,340	n.a.	n.a.
343	--- Not assigned a room number ---		
345	Not assigned a room number	345	n.a.
348	--- Not assigned a room number ---		
350	--- Not assigned a room number ---		
354	354	n.a.	354
355	355	n.a.	355
356	356	n.a.	356
357	357	n.a.	357
358	358	n.a.	n.a.
383	359	n.a.	n.a.

1984	Original Plan	1897	1901
427-429	426	n.a.	426
431	428	n.a.	428
433	429	n.a.	429
434	--- Not assigned a room number ---		
435	--- Not assigned a room number ---		
436	431	n.a.	431
437	432	n.a.	432
438	433	n.a.	n.a.
438a	--- Not assigned a room number ---		
440	434	n.a.	433-434
439	--- Not assigned a room number ---		
442	--- Not assigned a room number ---		
443	436	n.a.	436
444	437	n.a.	437
445	438	n.a.	438
446	439	n.a.	439
448	440	n.a.	440
449	--- Not assigned a room number ---		
450	441	n.a.	441
452	442	n.a.	442
453	443	n.a.	n.a.
454	--- Not assigned a room number ---		

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Annotated Bibliography

This bibliography does not attempt to list every reference examined during the current study of the State House. Rather it is a compilation of the most useful sources of information and a directory to the location of further sources. As an aid to the future scholar, references have been ranked according to their usefulness. The most important references are marked with two asterisks and the next most important, with one asterisk. Explanatory information inserted by the author is enclosed in brackets. The location of references found in a single repository other than the State Library is given at the end of the bibliographic entry. The reader is referred to the Methodology section of this study for general information of the location of sources.

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